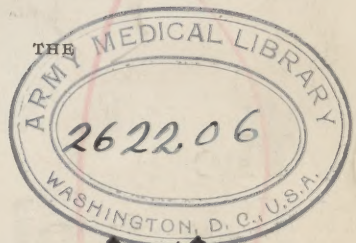
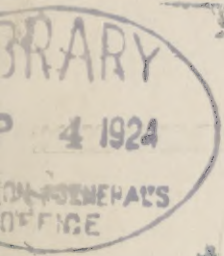






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Maine Medical Association.

The Official Organ of the State and County Medical Societies.

VOL. XV, No. 1. ✓

AUGUST, 1924.

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GASTRON

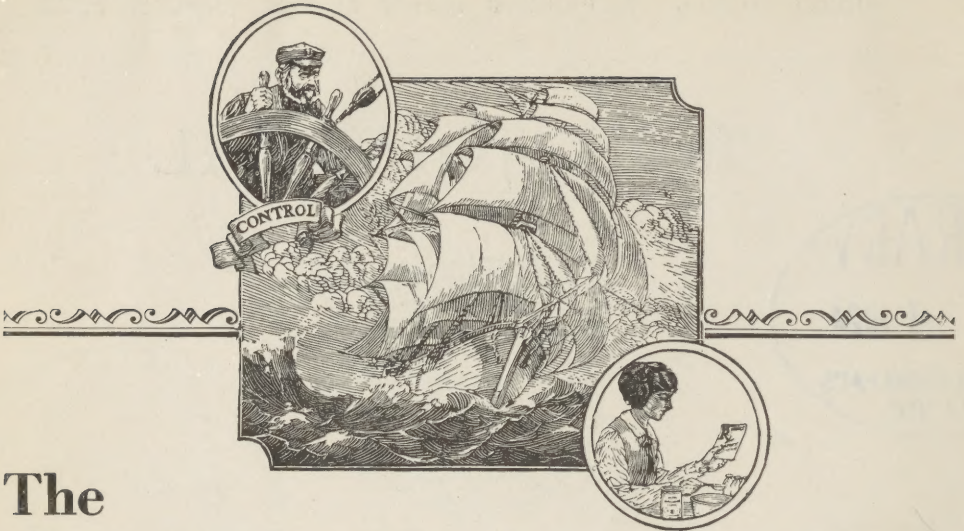
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THE JOURNAL

OF THE

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Published under direction of the Council of the Maine Medical Association.

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The Journal assumes no responsibility for opinions expressed by the authors.

VOL. XV.

AUGUST, 1924.

No. 1

TRANSCRIPT OF PROCEEDINGS AT THE SEVENTY- SECOND ANNUAL MEETING OF THE MAINE MEDICAL ASSOCIATION.

First General Session.

CONGRESS SQUARE HOTEL, PORTLAND, MAINE, JUNE 26, 1924.

The meeting was called to order at 9.30 A. M. by the President, Dr. C. A. Moulton, of Hartland.

Invocation by Bishop Brewster.

THE PRESIDENT: In order to make this meeting snappy, and that things may go off according to the time arranged for in the program, I hope every brother will adhere as much as possible to the rule that each paper shall not exceed twenty minutes in reading, and discussion not over five minutes, unless special permission is given. We do not want to suppress discussion or any valuable thoughts that anyone may have, but have them come out snappy and thereby make the meeting an interesting one.

The first paper that we have on the program is one by Dr. C. E. Richardson, of Skowhegan, on "Intestinal Obstruction." Dr. Richardson.

DR. RICHARDSON reads.

THE PRESIDENT: The next paper is on the "Schick Test," by Dr. Earl S. Hall, of Westbrook.

DR. HALL reads.

THE PRESIDENT: The next paper is by Dr. Earl S. Merrill, of

Bangor, on "An Appeal for Closer Co-operation between the General Practitioner, General Surgeon and Urologist."

DR. MERRILL reads.

THE PRESIDENT: I will announce that the cancer conference, that was to have been held in the Grill Room at the Lafayette Hotel, has been cancelled.

The fourth number on our program this morning is a paper by Dr. Harold S. Pratt, of Livermore Falls, on "Intussusception in Children." Dr. Pratt.

DR. PRATT reads.

THE PRESIDENT: The afternoon meeting will commence promptly at 1.30.

Voted to adjourn.

Second General Session.

JUNE 26, 1924.

The meeting was called to order at 1.30 P. M. by the President.

THE PRESIDENT: I will call to the chair the First Vice-President, Dr. E. G. Stetson, of Brunswick.

THE CHAIRMAN: The first number on the program this afternoon is the President's address.

DR. MOULTON reads.

DR. WARREN, of Portland: Mr. Chairman, I move you, sir, that the thanks of this Association be extended to Dr. Moulton for his able and eloquent address, and that a copy be requested for publication in the JOURNAL.

The motion prevailed.

President Moulton assumes the chair.

THE PRESIDENT: The first paper of the afternoon is by Dr. Harry S. Emery, of Portland, on "Insulin." I am sorry to say that Dr. Emery is ill, but Dr. Brock will read his paper.

DR. BROCK reads.

THE PRESIDENT: I wish to call upon Dr. Baldwin, of Framingham, representing the Massachusetts Medical Association. (No response.)

THE PRESIDENT: Dr. Baldwin seems to have escaped, but Dr. Frothingham also represents the State of Massachusetts.

DR. FROTHINGHAM: Mr. President, I am afraid I have not

the athletic record of Dr. Baldwin. He is still a good manager, because he just ran out of the door when he heard you were going to call on him. I asked the President of our state society what I should do when I came down here as a delegate, and he said, "Look and listen, but don't talk." I think, however, that I am authorized to speak for the Massachusetts Medical Society in extending to the Maine Medical Association the greetings from Massachusetts, and I know that I can go back to Massachusetts and tell them that I was one of the lucky ones of our society in being asked to come down here to Maine, because so far I have enjoyed a very excellent program, and I feel sure, looking ahead at the program, that the rest of my stay here is going to be most enjoyable.

THE PRESIDENT: Are there any delegates from any other state associations present that we can hear from at this time? (No response.)

The next paper on the program is by Dr. Knowlton, of Ellsworth, on "The Future of the Country Practitioner."

DR. KNOWLTON'S paper read.

THE PRESIDENT: We have now come to the third paper, by Dr. Howard Fox, of New York City, on "Modern Treatment of Skin Diseases," illustrated by stereopticon views. Dr. Fox.

DR. FOX reads.

THE PRESIDENT: Has anyone else anything to offer? It is a good time for suggestions, questions or remarks. If there is nothing further, I wish to announce that the second meeting of the House of Delegates will be held immediately in this room. Important business awaits you, so give it your attention if possible.

Voted to adjourn.

Third General Session.

JUNE 27, 1924.

The third general session was called to order by the President, Dr. Moulton, at 9.30 A. M.

THE PRESIDENT: The first paper we have this morning is by Dr. E. G. Abbott, of Portland, on "Fractures of the Hip." Unfortunately, Dr. Abbott is not present and will not be able to have his paper read, so it will be read by title only and will be published in the JOURNAL.

The next paper is by Dr. Walter M. Spear, of Rockland, on "Surgical View of Cesarean Section." Dr. Spear.

DR. SPEAR reads.

THE PRESIDENT: The next paper is by Dr. B. E. Hamilton, Cardiologist at the Boston Lying-in Hospital, on "Heart Disease Complicating Pregnancy," very properly following the paper we have just had.

DR. HAMILTON's paper read.

THE PRESIDENT: The concluding paper this morning is one of peculiar interest to the doctors of the State of Maine. Those of us who were present at our House of Delegates meetings will particularly appreciate it. Dr. Haven Emerson, of New York, on "Periodic Health Examination."

DR. EMERSON reads.

THE PRESIDENT: We now have a little over twenty minutes for the business part of this meeting. Will you proceed with the business or do you wish for some discussion? (There being no response, the business was proceeded with.)

THE PRESIDENT: The first thing is the report from the House of Delegates.

DR. BRYANT: First is the report of the Treasurer.

(See page 7, House of Delegates proceedings.)

Report of Budget Committee.

(See page 20, House of Delegates proceedings.)

Report of Nominating Committee.

(See page 19, House of Delegates proceedings.)

Report of House of Delegates :

Voted to approve the reports as published in the JOURNAL of the various officers and committees.

Voted to approve the request of the Maine Public Health Association that the Maine Medical Association should direct the work of the examination of crippled children.

Voted to approve the program of the Committee on Public Relations in regard to periodic health examination.

Voted to instruct the Legislative Committee not to introduce new medical legislation this year, but to prepare to meet any pernicious legislation that may come up, and continue the campaign of public education.

Voted to have the next meeting at Bar Harbor, in June, 1925.

THE PRESIDENT: I believe the foregoing requires no action at this meeting.

DR. MARSH: Mr. President, if it be in order, I would ask the privilege to have Dr. Bennett, of Lubec, inform us something in regard to our group insurance. I think there are many of us who have never known about it.

DR. BENNETT: (Reading from specimen policy) "If any suit, even if groundless, false or fraudulent, is brought against the assured to enforce a claim for damages on account of any malpractice, error or mistake, covered by this policy, the assured shall immediately forward to the head office of the company every summons or other process as soon as the same shall have been served on him, and the company will, at its own cost, and subject to the limit of indemnity contained herein defend such suit in the name and on behalf of the assured, provided, however, that every individual assured, when so requested by the company, hereby agrees to testify in the trial of any action against any other assured hereunder without remuneration. The assured may at his expense be represented by associate counsel in any suit for damages covered by this policy."

DR. R. H. MARSH, of Guilford: Mr. President, the point that we wish to bring out in this policy is that if any of us are called upon to testify in a malpractice suit, we are, according to the policy, obliged to go wherever we are called, at our own expense, and to spend all the time necessary. Also, we are obliged, should we want counsel other than what the company provides, to pay for such counsel. Possibly many of the members have never read this part of the policy, and I have been requested to bring it up at this meeting.

THE PRESIDENT: My attention has been called to the fact that the School for the Feeble-Minded should be included in the inspection work of the committee that inspects the state hospitals.

THE PRESIDENT: We will proceed with the concluding business of the Association, which will be the election of a President-Elect. The Chair now awaits the nominations.

DR. NEAL: Mr. President and Members of the Maine Medical Association: I assure you it is with great pleasure that I stand before this congenial gathering to-day in this beautiful city of Portland, in the grand old State of Maine, to place before you for your consideration the name of one of your associates for the greatest honor that this Association can bestow upon one of its members. Having practiced for nineteen years in the same community with my friend and colleague, I can assure you of his integrity and of his loyalty and faithfulness to the profession of medicine. He is a graduate of the Medical Department of the University of New York

and has practiced in his present location for thirty-eight years. As some of you are well aware, he was a member of the Senate during the last legislature and he did good work in the protection of the interests of the medical profession. The chances are that he will hold the same position in the next legislature, and you can rest assured that his efforts will be directed toward the betterment of the laws for the protection of the health of the people of Maine. Gentlemen, I nominate for the office of President-Elect of the Maine Medical Association Dr. Joseph D. Phillips, of Southwest Harbor. (Applause.)

On motion, duly seconded, it was voted that the nominations be closed.

On motion by Dr. Leighton, duly seconded, it was voted that the Secretary cast the ballot of the Association for Dr. J. D. Phillips as President-Elect.

Thereupon the Secretary complied with the will of the Association and so cast its ballot, and Dr. Phillips was declared duly elected President-Elect of the Association for the ensuing year.

PRESIDENT-ELECT PHILLIPS: Mr. President and Gentlemen of the Association: I wish to thank you all for the honor you have bestowed on me to-day. I feel that it is quite a responsibility, but I assure you that I will do my utmost to make an interesting session for the next year, and do all I can to advance the interests of the society, so that in the end you may not be ashamed that you have this day made me President-Elect. I thank you.

On motion by Dr. Leighton, it was voted to adjourn.

Fourth General Session.

JUNE 27, 1924.

The fourth general session was called to order by the President at the Congress Square Hotel, at 1.30 P. M. This session was held under the auspices of the Cumberland County Medical Society, and Dr. A. Zingher explained the "Dick Test," with the aid of lantern slides, followed by a demonstration at the Maine General Hospital.

PRESIDENT MOULTON: Before adjournment I wish to thank you for the very successful meeting we have had, and I desire to call to the Chair, and introduce to you, your next President, Dr. Mann.

DR. MANN: Gentlemen, I wish to thank you again for the honor you have conferred upon me, and in obedience to the plan of your retiring President, I declare this seventy-second session of the Maine Medical Association closed.

First Session of the House of Delegates.

CONGRESS SQUARE HOTEL, PORTLAND, ME., JUNE 25TH, 1924.

The meeting was called to order at 7.30 P. M., President-Elect Mann in the chair.

A roll-call disclosed a quorum present for the transaction of business.

THE CHAIRMAN: We will now listen to the reports of the Secretary and Treasurer.

DR. BRYANT: The reports will be found in the June number of the JOURNAL. I think a motion is in order that all reports published in the JOURNAL be referred to the Reference Committee to bring in resolutions at the next meeting of the House of Delegates.

Thereupon it was voted that the reports published in the JOURNAL be referred to the Reference Committee.

DR. BRYANT: As to the report of the Treasurer. The reports were not all in, and I would say that the report of York County is not in at the present time. Legally, this would debar York County from taking any action in this meeting. Whether you wish to overlook it, of course, is the question. No report has come in from that county this year, either financial or a list of members.

The amount of money taken in this year from dues is	\$2,808.00
Interest on deposits,	170.00
Cash on hand the first of the year,	6,343.35

Making total cash to be accounted for,	9,321.35
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Expenses:

Secretary's office,	\$444.78	
State meeting,	540.36	
Delegate expenses,	380.00	
Journal,	800.00	
Defense,	400.89	
Secretaries' meeting,	46.75	
Councilors,	35.17	
Legislative Committee,	12.05	
Cancer Committee,	24.83	
Venereal Committee,	25.00	
Reprints,	15.70	
Flowers,	20.00	
Badges,	11.44	
		\$2,756.97

Cash balance on hand June 1, 1924:

Checking account,	\$2,560.81	
Savings,	4,003.57	
		\$6,564.38
Total,		\$9,321.35

This is somewhat of an increase over last year, with York County not yet in.

On motion, voted that the Treasurer's report be referred to the Councilors for auditing.

THE PRESIDENT-ELECT: We will now listen to the report of the delegate to the American Medical Association, Dr. Gerrish.

DR. GERRISH: Mr. Chairman and Gentlemen:

The Chicago session was well attended, much enjoyed and the keynote was enthusiasm for the cause of medicine.

The exhibits and section meetings were under one roof at the Municipal Pier, and proved of great value.

At the first meeting of the House of Delegates, Dr. William A. Pusey, now President of the Association, spoke concerning certain problems in medicine. He spoke earnestly against the interference with the rights of physicians on the part of government; he looked with disfavor on the increasing trend to specialties, and said, "We must go back to the family practice of medicine." Concerning the scarcity of physicians in rural districts, he said that "these districts must be reconstructed, and made suitable for physicians to live in; they might be able to guarantee a certain income to a physician, or scholarships might be offered, if a doctor would settle in the country." He offered the suggestion that a course for general practitioners might be set up in medical schools, which would receive fit boys from high school and give them medical essentials for three years, to be followed by one and one-half years' training in a good hospital. Could a high school pupil do it? His answer, "Yes." Could essentials be covered in three years? His answer, "Yes."

At this meeting committee reports were heard. Full-time secretaries were advocated for each state. In one report was discussed the matter of shortening the high school course from four to three years, and the lower grades from eight to seven years, in order to save two years for the medical man or woman, whose average age on beginning practice is now twenty-eight years. Concerning periodic health examinations, it was thought that the most powerful agents in their promotion are the county medical societies; it was brought out that middlemen (jobbers) are now advertising to do "health examinations," and are doing a money-making business. Several resolutions were introduced.

The second meeting of the House of Delegates was a "wet" day. Intensive discussion took place; emphatic speeches were made on phases of the dry question, and a resolution against the present dry-act restrictions on physicians was adopted. The House adopted the resolution relative to placing cosmetics under regulation, also adopted a resolution against "Periodic health examinations, indiscriminately done."

At the last meeting of the House, officers were elected and unfinished business cleared. The House listened with great pleasure to retiring President Wilbur, and also to the President of the Woman's Auxiliary of the A. M. A., who offered, in no uncertain tones, the services of that body in the solution of medical problems.

L. P. GERRISH.

On motion, duly seconded, it was voted to refer the report of the delegate to the A. M. A. to the Reference Committee.

THE CHAIRMAN: Next we will listen to the report of the Committee on Venereal Diseases.

REPORT OF THE COMMITTEE ON VENEREAL DISEASES AND
THEIR PREVENTION.*Mr. President and Members of the House of Delegates:*

The Committee on Venereal Diseases and Their Prevention makes its thirteenth annual report.

During the past year, your committee has received from the Maine Medical Association \$25.00, from Bowdoin College \$100.00 and from interest on savings bank deposits \$12.80.

The American Agricultural Chemical Company has continued to pass dividends on its preferred stock, so your committee has received no income from the Prince A. Morrow Memorial Fund which the donor invested in twelve shares of that stock.

In 1922, your committee decided that to avoid duplicating the work of the State Health Department it was advisable to limit its own work to the following activities:

(1) The plan of obtaining from school superintendents the addresses of fathers of the boys of grammar school age and then sending to these fathers carefully worded individual letters, accompanied with pamphlets of information. The letter suggests the duty of the father to arrange for his son to receive proper instruction in sexual hygiene.

(2) The sending of letters and literature to the members of the National Guard of Maine. Dr. Belfield's pamphlet has been used, accompanied by an individual letter. A letter of appreciation from General Presson was published in the 1921 report.

(3) The third activity consists of an attempt to reach the leaders of Maine boys. The distribution of social hygiene literature to young men of the senior class of the Maine high schools and academies has been carried on to a limited extent, when it could be done with the co-operation of the principals and school authorities. Work with Boy Scout organizations, with the co-operation of the Scoutmasters, has seemed to give good results. Meetings of the leaders of the Y. M. C. A. in conventions and camps have furnished opportunities of reaching leaders of Maine boys. During the last year your chairman, through the co-operation of Principal R. L. Hunt, of Hebron Academy, sent individual letters to the members of the senior class at Hebron. These letters were worded somewhat as follows:

"MY DEAR SIR:—In accordance with a plan suggested by the Committee of the Maine Medical Association on Venereal Diseases and Their Prevention, I am sending you a small pamphlet dealing with sex hygiene. The plan of the committee is to reach the leaders of Maine boys, and for this reason I am sending literature to the members of the senior classes of Maine academies and high schools. It is the belief of the committee that much venereal disease would be prevented were men familiar with the facts set forth in this little book. Therefore I ask you to read its pages and then decide whether or not it contains truths which may be of benefit to yourself or others. If you do not agree with the views expressed, will you help the committee by writing frankly your criticisms to me.

Very sincerely yours,"

Through the courtesy of Principal Hunt, your chairman was able to follow up later in the year with a talk to the whole Hebron student body. During the year, work with the National Guard and the parents of boys of grammar school age has been carried on in a limited way, following the outline in the 1923 report.

During its fourteen years of service your committee has received many letters of encouragement and very few words of criticism.

The work of the early years was directed largely toward developing public opinion and enlisting the co-operation of the State Health Department. In 1911, your committee recommended to the State Health Department that syphilis, gonorrhœa and chancroid be added to the list of diseases which physicians are required by law to report to the State Health Department, with the provision that the diseases mentioned be reported by number instead of by name, and be accompanied by the physician's statement relative to facts concerning the source of the infection. This recommendation was repeated each year until it was to a great extent adopted in 1917.

In 1912, it seemed to the committee that one of the best ways of carrying on a campaign of education of the public as regards the prevention of venereal diseases was according to the plan advocated by Dr. Bailey, of Harvard, of sending carefully worded circulars of information on sex hygiene to parents, with the request that parents read them, and if they found nothing questionable or objectionable in them to give them to their children to read when they reached a suitable age. Parents were further requested, in case they found anything objectionable in the circulars, to notify the committee of their objections.

In order to carry out this work it was necessary to have funds, and accordingly a statement of conditions was sent out to about two hundred people who seemed likely to be interested. As a result of these letters a fund of \$485.72 was contributed.

A special joint meeting of the State Board of Health and your committee was called on June 8, 1912, to consider the question of the prevention of venereal disease in this state. At this meeting the State Board of Health passed the following resolutions:

Resolved, That the State Board of Health is ready to co-operate with the members of the medical profession, as represented by the Committee on Venereal Diseases and Their Prevention of the Maine Medical Association, in the protection of the community and the education of children along lines indicated by the following resolution.

Resolved, That this Board approves a plan of disseminating information among superintendents of schools and parents upon sex hygiene and the danger of venereal infection.

Resolved, That it is the sentiment of this Board that syphilis, gonorrhœa and chancroid should properly be included in the list of infectious diseases made reportable by law, provided such diseases be reported by number and not by name.

In 1912, the Maine Medical Association contributed \$50.00 toward carrying on the work of the committee. This contribution was repeated in 1913 and 1914, and in 1916 your committee sent letters to all state boards of health in the country to determine the relative amounts expended for the control of tuberculosis and other infectious diseases. The results of sending out the questionnaires showed that the total amount spent by the forty-eight states directly for the suppression of venereal diseases was only \$17,500.00, while nearly 6,000,000.00 was spent to combat tuberculosis.

In 1916, the Maine Public Health Department had an annual appropriation of only a little more than \$30,000.00, and could do little to aid in the fight against

venereal diseases. It is interesting to note that at the present time, about eight years later, the Maine Public Health Department is spending \$20,000.00 annually to carry on this same fight. This is about one-sixth of the total funds spent by the State Health Department.

During the session of the Maine Legislature of 1917, your committee devoted much time and funds to securing the passage of a law to provide for the free laboratory diagnosis of syphilis by the Wassermann reaction treatment of syphilis and gonorrhoea at cost, and the reporting, care and segregation of cases of venereal diseases in charitable and correctional institutions. This work had the support of the State Board of Charities and Corrections and of the Children's Protective Society of Maine. The original draft of the bill was prepared by Mr. James F. Bagley, then Secretary of the State Board of Charities and Corrections, and the bill was introduced by Senator Roscoe T. Holt, of Cumberland County. Among the speakers for the bill at the hearing before the Committee on Public Health, to which the bill was referred by the legislature, were Dr. A. G. Young, Secretary of the State Board of Health, Mrs. Maude Williams Smith, Agent for the Children's Protective Society of the State of Maine, and Miss Gertrude L. McDonald, Superintendent of the State School for Girls, all of whom did much to secure the passage of the law. The chairman of your committee conducted the case for the proponents at the hearing.

In its work for this law, the committee sent seven hundred forty-four individual letters, with copies of the bill, to members of the Maine Medical Association. The matter was personally presented by the chairman to the members of the Cumberland County Medical Society and to many individual members of the state association. The Cumberland County Society unanimously endorsed the measure at its March meeting, and much aid was given by the members of the state association throughout the state, a majority of the physicians of Maine being heartily in favor of it. Nearly two hundred individual letters, with reports and literature, were sent to members of the legislature, and many enthusiastic replies and pledges of support were received. The aid of eighty daily and weekly newspapers of the state was asked, and many editorials of endorsement were published.

The act appropriated \$8,000.00 to carry out its provisions during the years of 1917 and 1918.

Since the re-organization of the Maine Health Department, in 1917, work of the division of social hygiene has increased by leaps and bounds. The advance of the department of serology in the Diagnostic Laboratory has been no less marked.

Six thousand Wassermann tests were made last year, and this year the number will be much higher. Nearly three thousand arsphenamine treatments have been given free of charge during the last year.

It is a source of gratification to your committee that this work is in line with the legislation of seven years ago. The present work of your committee is to assist whenever possible in carrying on some of the fields of work not covered by the greater organizations made possible by state and federal aid.

Your committee asks to be continued and that the usual appropriation of \$25.00 be granted.

Following is the financial report for the year ending June, 1924:

RECEIPTS.

Maine Medical Association,	\$ 25.00		
Bowdoin College,	100.00		
Interest, savings bank deposit,	12.80		
		<hr/>	
		\$137.80	
Balance on hand June, 1923,		346.96	
		<hr/>	\$484.76

EXPENDITURES:

Printing, a, b,	\$22.45		
Postage, a, b, c,	5.00		
Clerical work, a, b,	10.00		
F. A. Davis Co., a, b,	5.50		
Typewriting and supplies, a, b,	3.50		
American Social Hygiene,	2.00		
American Railway Express,	1.20		
		<hr/>	
		\$ 49.65	
Balance on hand June, 1924,		435.11	
		<hr/>	\$484.76

Respectfully submitted,

F. N. WHITTIER,
H. W. STANWOOD,
E. E. HOLT.

Approved by the Council June 25, 1924.

E. V. CALL,
GEORGE E. YOUNG,
N. A. FOGG.

THE PRESIDENT-ELECT: I am sure you have listened with great pleasure to Dr. Whittier's report. What disposition will you make of it?

On motion, voted to refer it to the Reference Committee.

THE PRESIDENT-ELECT: Have we reports of any other committees not published in the JOURNAL?

DR. GERRISH: Mr. Chairman, there is a supplementary report of the Legislative Committee, but I do not know whether it is in order at this time or not.

THE SECRETARY: Put it in and refer it to the Reference Committee.

DR. GERRISH: This is relative to the two bills printed in the JOURNAL, and also to the meeting held at Chicago.

SUPPLEMENTARY REPORT.

At Chicago, during the A. M. A. meeting, a special meeting was called and a conference held on legislative problems. Delegates were present from many of the states, and all were given a chance to present their ideas, experiences, needs and ambitions. It was thought by all present that a permanent legislative body should be organized, with the A. M. A. the hub of the wheel, with its legislative bureau as a guiding force, that each state, and each county should

organize a legislative bureau or committee and keep in close touch with the central bureau of the A. M. A. This matter was referred to the Trustees for further consideration.

This legislative meeting developed into an experience meeting, each representative telling conditions as they existed in his own home state; telling failures and successes, and most especially "needs"—and they were many. We have our troubles in Maine, but there are other states that are in the same dilemma. In fact, every state in the union, as brought out by its representative, is full of trouble and is looking for relief. States that have one licensing board for all who would practice the healing art—they, even they, are full of trouble. They say, "We have a fine medical act, but we cannot enforce it." I will give you quickly and concisely a résumé of this meeting, bringing out some of the principal points.

Oregon.—Full of troubles; can't enforce law; has no real organization.

Pennsylvania.—Has a fine medical act, but enforcement of law is difficult. They operate through state and county legislative committee, and go strong to legislature. They have been able to defeat chiropractic bills yearly, but osteos have put through a "surgical board."

Rhode Island.—Keeps a daily representative at legislature.

Texas.—Has a good law; one board. Each doctor puts in an assessed amount of money to carry on legislation.

Arizona.—Full of trouble; can't enforce law.

Arkansas.—Is just now trying to put through a new medical practice act.

California.—Has a good medical act. Public Health Association has been of great help to them in legislation.

Colorado.—Chiropractors are now after a separate board; they work by arousing public interest.

Louisiana.—Has a legislature committee for each Congressional district; medical laws poorly enforced.

Connecticut.—Full of troubles.

District of Columbia.—Nearest Washington; especially full of troubles. Blames all law makers in general, and says medical matters are a joke to politicians.

Georgia.—Happy; everybody does apparently as he wants to; enforcement hard.

Indiana.—Good medical act; has legislative committee in each county. Indiana believes in publicity, and publicity bureaus in each state and county society. They believe in prosecution instead of persecution.

Iowa.—Home of chiropractic. Legislation is very difficult; enforcement of law difficult.

Maryland.—Full of troubles.

Massachusetts.—Has fair law, but wants better one; has general legislative committee and sub-committee in each district; also has publicity and educational committees. They are allowing legislative committee \$10,000 this year and hope to offer something worth while to next legislature.

Michigan.—Has a bill of uniform requirements, and a good one. Chiroso are now trying to break it, and in last legislature passed a separate bill of their own, through both houses, unanimously. The doctors then got busy with 3,000 telegrams, and it was finally defeated.

Mississippi.—One board. Medical association nominates to governor men to be on the board.

Missouri.—Troubles. Chiro each contribute \$30.00 a year for cause of legislation. They advertise extensively; pay papers lots of money, and thus gain their friendship.

New Jersey. Organizes politically. Goes 700 and 1,000 strong to a legislature; hires three lawyers to study defects in laws; their machinery works.

New York.—Has an ideal law, but no police power to enforce; has legislative committee with paid secretary. This committee advises each county chairman and they get busy. New York believes in publicity, and in getting the legislator in black and white before election.

Ohio.—Has one board; has legislative committee and full-time executive secretary. Ohio has (1) too little money to get prosecutions; (2) trouble in thawing out legislators. On their board is no majority of any one school.

And so on went this interesting meeting—troubles and more of them.

In Maine, we have under consideration two bills, far from perfect, but simply bills which, if studied, may bring out some ideas for future use.

One is a bill (printed in this month's JOURNAL) calling for a certain preliminary examination in medicine (presented and turned down by Judiciary at last legislature). This bill was copied from the Tennessee bill, which at that time was working well. While in Chicago, Dr. Woodward told me that the bill in Tennessee, calling for a preliminary examination (of which ours is practically a copy), was not "working out well," and he thought it would soon be repealed. The other bill which is up for our consideration, calling for a single board for all, is worthy of our consideration. While in Chicago, I gave both of the above bills to Dr. Woodward, who is in charge of the Legal Bureau of the A. M. A., and he told me that he was afraid of both of them. He has since written his criticisms, and I will read you his communication.

DR. WOODWARD'S LETTER.

535 NORTH DEARBORN STREET, CHICAGO, June 17, 1924.

DR. L. P. GERRISH,
Chairman, Legislative Committee,
Maine Medical Association,
Lisbon Falls, Maine.

Dear Dr. Gerrish:—I have examined with such care as time has permitted the draft you left with me, of a new medical practice act for Maine. As the result of that examination I am compelled to recommend strongly against the projected legislation.

As I read between the lines, the draftsman who formulated this measure aimed to replace your several boards by a single board and to establish as nearly as possible a single standard for all. It does not seem to me, however, that the bill accomplishes these ends in a way to make its enactment worth while. In fact, I believe that the people of Maine are better off under existing laws than they would be under the proposed law, for if the proposed law were enacted, its very newness would be urged as a reason for giving it a fair trial before seeking further legislation, whereas if it be not enacted there will be no such reason for postponing remedial legislation, which you can submit in the form of a perfected bill.

I submit some specific criticisms of the draft you left me, in the accompanying memorandum. If I can serve you further, I shall be glad to do so.

Incidentally, I am hopeful that the Board of Trustees will provide some way by which a model or standard medical practice act can be drafted in the next few months, which can serve as a guide for our state associations in preparing legislation to meet local needs.

Yours truly,
WM. C. WOODWARD.

REPORT OF LEGISLATIVE COMMITTEE.

Your Committee has kept in touch with legislative action in other states. Several state medical bureaus have kindly sent us frequent bulletins, concerning bills of interest, their character and progress. How to get at something worth while, for the protection of the public, in medical matters, is a burning question. We have had prepared two bills. One was introduced into the last legislature, and dealt with the matter of preliminary medical education; the other is a bill calling for a single board for all who would practice the healing art. We realize that these bills are far from perfect; in fact, they may prove but a nucleus for further constructive thought. We wish that each and every physician would give them careful study, and would feel free to express his opinion thereon. From the best thought in our own Association, and with the aid of other state associations and the A. M. A., we hope to work out a progressive program.

L. P. GERRISH,
W. E. KERSHNER,
J. D. PHILLIPS.

Voted, That the report be referred to the Reference Committee.

THE PRESIDENT-ELECT: Are there any other committees to report?

THE SECRETARY: The Maine Public Health Association asks for the endorsement of the following program in its work for crippled children:

(1) The designation of clinic centers by the Medical Advisory Committee.

(2) The designation by the Medical Advisory Committee of a group of Maine physicians, from which the clinicians for these clinics will be invited with the approval of the Public Relations Committee of the various county medical societies.

(3) Approval by the Medical Advisory Committee of the record forms to be used in this work.

(4) Fixing by the Medical Advisory Committee of a general policy to govern the clinics.

THE PRESIDENT-ELECT: You have heard the report of Dr. Bryant.

DR. WARREN: What do you suggest, Mr. Secretary?

THE SECRETARY: I should suggest that it be referred to the Reference Committee. Personally, I feel that the Maine Public Health Association is standing firmly behind the medical profession and doing more for the medical profession in the State of Maine than any other body that I know, and they turn to us in all medical matters for our advice. They do not try to put anything over unless it is approved by the Advisory Committee of the Maine Medical Association. I think it is the one state where we have the absolute co-operation of the lay health association with the medical profession, and it is up to us whether we will co-operate and take our

proper place in the work, or whether we pull out and let it go haphazard; but the work surely will go on, and we can assist or we can leave it alone. Up to the present time we have co-operated absolutely with the Maine Public Health Association in all counties where we have been affiliated.

THE PRESIDENT-ELECT: Do I understand, Dr. Bryant, that you move that this be sent to the Reference Committee?

THE SECRETARY: Yes.

And the motion prevailed.

THE PRESIDENT-ELECT: Have we any new business or any further reports?

Dr. James A. Spalding, delegate to the meeting of the New Hampshire Medical Society at Manchester, reported as follows:

The meeting of the New Hampshire Medical Society was held this year at Manchester, instead of at Concord, as usual. I attended part of the meeting only, as a delegate, because I felt compelled to come back to our own meeting on affairs of business.

The most interesting part of the New Hampshire meeting was the Dry Clinic on the morning of the first day, showing patients affected with diseases such as tuberculosis, diabetes, end results in pneumonia, and in skin diseases, but the great attraction was moving pictures of the diphtheria immunity (Shick) test. In this, an obstinate parent refuses to have it done, and the pictures show one child with a paralyzed throat, another with a weakened heart, probably for life, whilst a third child escapes by late utilization of the test. I hope that Maine can see this set of pictures often, and in every place of importance in the state.

Other papers on "Juvenile Tuberculosis," "Gastric Ulcers" and "Breast Cancer" were well received. Of the address of the President of the A. M. A., you can convince yourself during our present meeting.

I would like to suggest, that the meetings of all Associations might take place in smaller rooms for the reading of papers, because in large and vacant spaces, although the speaker's voice can be plainly heard, he has no chance to come into that eyesight touch so essential to a convincing delivery of the message which he desires to communicate. This was the state of affairs at Manchester, but, in spite of the largeness of the hall, the meetings went on successfully, and I regretted that I could not give to the rest of the valuable program the time which it deserved.

JAMES A. SPALDING.

Dr. E. H. Bennett, delegate to the Connecticut Medical Society at Hartford, reported as follows:

Mr. President and Members of the House of Delegates:

Because of your courtesy in electing me a delegate to the Connecticut Medical Society, I had the pleasure of attending the meetings of that association, held in Hartford, on May 28th and 29th, 1924.

The forenoon of the first day I attended the meeting of the House of Delegates. This meeting was well attended. They give the entire forenoon of each

day to the business of the society, but do not have a meeting of the house on the evening preceding the regular session, as we do. Their proceedings seemed a little more formal than ours, but business principles and precision marked the routine work. They also have legislative problems, which they hope to overcome.

I have not seen a better looking bunch of men anywhere. At the afternoon session the papers were all classical, so much so that the ordinary practitioner would wonder whether it would all take root. Discussion was active, interesting and instructive.

The forenoon of the second day I spent at the Hartford Hospital, one of the best I have visited. The superintendent summers in Maine, and all Maine visitors are welcome. Witnessed several major operations, which were skillfully performed. The physician who visits Hartford and does not visit the Hartford Hospital misses a treat.

The functions of the afternoon were at the Hartford Retreat, a most delightful spot, a home for the moderately insane. This was a social gathering, with buffet lunch. I met a goodly number of Maine men, and heard of many others, but did not hear of one who had not made good. Dr. Overlock, delegate to this Association, promised, if possible, to attend this meeting; hope he will. Was obliged to miss the banquet in order to keep other engagements.

I fear we do not lay much stress on fraternal visits. I noticed that I was the only delegate. When I told Dr. Comfort, the genial Secretary, that I wanted to gather some new ideas to bring back to the Maine Medical Association, he laughed and said: "Why, your Secretary, Dr. Bryant, is a regular fire-brand; you cannot tell him anything new." So I invite him to deliver the *new* goods.

I am deeply grateful to this society for the honor of representing you at the Connecticut society, and express my sincere appreciation of the many courtesies shown me while there.

Respectfully submitted,

E. H. BENNETT.

THE PRESIDENT-ELECT: Are there any further reports? (No response.) If not, I would really like to listen to Dr. Leighton's education problem.

DR. NEAL asked about the probability of automobile insurance in connection with the liability form.

THE SECRETARY: This matter is under consideration at the present time.

DR. GILBERT, of Calais: I am going to make a motion, if in order, that each and every delegate assembled here to-night send a typewritten report to every constituent in his district on the suggestion of Dr. Call to the insurance companies that they be given a list of questions and answers in regard to malpractice, what they should do or should not do when called upon to answer charges against them. I think that is a wonderful suggestion. Mr. Chairman, if it is in order, I am going to make the motion that every delegate send that to his constituents.

Motion seconded.

DR. WARREN: Just what does he mean by "his constituents"?

THE PRESIDENT-ELECT: Physicians in his county, I presume.

DR. PRATT: Where is he going to obtain this material?

DR. WARREN: Wouldn't it be a good plan to refer that to our State Secretary and let him get out a uniform paper for the whole state?

DR. GILBERT: It seems to me that every man here knows pretty near what to do. Write a personal letter or have the Association get it up.

DR. COOK: Mr. Chairman, I am not going to send a letter to every doctor in York County. Even if I promised, I would not do it; but I do think it a good idea that all the doctors should know these things. I have had trouble myself about malpractice, and it would be fine to have the doctors understand their rights when the lawyer for the other fellow comes to make a call, but I do not think it should be left to me to let the doctors in York County know about this. I certainly wouldn't do it. I know myself too well.

THE SECRETARY: Since the suggestion came from the insurance company, I move that we have the insurance company in a legal way submit a statement as to the rights of the physicians, what they should do, and suggestions to follow in malpractice cases. As your Secretary, I would be glad to mail it to every physician in Maine.

THE PRESIDENT-ELECT: You have heard Dr. Bryant's motion, that the insurance company make a statement of the physician's rights, and that the Secretary will send it to each physician in the state. What will you do with it?

The motion prevailed.

THE PRESIDENT-ELECT: Is there any other new business?

THE SECRETARY: I move that the Chair appoint a Reference Committee.

The motion being duly seconded, prevailed, and the Chair appointed as such committee Dr. R. H. Marsh, Guilford; Dr. W. H. Bradford, Portland; Dr. L. P. Gerrish, Lisbon Falls; Dr. Harry McNeil, Bangor, and Dr. E. H. Bennett, Lubec.

THE PRESIDENT-ELECT: Is there any other new business?

On motion by the Secretary, duly seconded, it was voted that a Nominating Committee be appointed, and the Chair appointed as such committee Dr. George A. Coombs, Augusta; Dr. George A.

Neal, Southwest Harbor; Dr. E. E. Holt, Jr., Portland; Dr. C. H. Burgess, Bangor; Dr. F. E. Bennett, Presque Isle.

THE PRESIDENT-ELECT: Is there anything else, gentlemen?

THE SECRETARY: When the time comes to adjourn, I would suggest that we adjourn until after the session to-morrow.

THE PRESIDENT-ELECT: Is there any other business?

DR. COOK: Mr. Chairman, I have a letter here from Dr. Edwin D. Jaques, of South Berwick. I do not know what committee it should be referred to. The letter is as follows:

"At the last meeting of the Maine Medical Association a recommendation was adopted that any member of the Association who has practiced in the State of Maine for fifty years should be awarded a medal or other token. I located in South Berwick June 5th, 1874, and have been in active practice here from that time to the present (and still at work).

"Will you kindly call the attention of the proper officials to my statement? It will be to me a pleasant memento of long service and a valued heirloom for my daughter when I shall have passed on.

"Thanking you for the favor,

Sincerely yours,

(Signed) E. D. JACQUES."

THE SECRETARY: No committee was ever appointed by the President to take this matter up, and it will be up to the President this year to appoint such a committee.

DR. MOULTON: I talked the matter over quite a bit, but there was no appropriation made for it, so I neglected that part of my duty. I thought that was the easiest way out of it, and I am simply sorry to pass it on to the next President.

The question of medical legislation was very generally discussed, and on motion, duly seconded, was laid on the table.

Adjourned.

Second Session of the House of Delegates.

CONGRESS SQUARE HOTEL, PORTLAND, ME., JUNE 26TH, 1924.

Meeting called to order at 4.00 P. M., by President-Elect Mann.

THE CHAIRMAN: Is the Nominating Committee ready to report?

THE SECRETARY: In the absence of Dr. Coombs, I have been asked to make this report.

First Vice-President—N. M. Marshall, Portland.

Second Vice-President—Carl H. Stevens, Belfast.

Secretary and Treasurer—B. L. Bryant, Bangor.

Councilor, First District—S. P. Warren, Portland.

Councilor, Second District—John Sturgis, Auburn.

Scientific Committee—Thomas Foster, Portland; C. E. Richardson, Skowhegan; C. C. Morrison, Jr., Bar Harbor.

Legislative Committee—L. P. Gerrish, Lisbon Falls; W. E. Kershner, Bath; J. D. Phillips, Southwest Harbor.

Committee on Venereal Diseases and Their Prevention—F. N. Whittier, Brunswick; H. W. Stanwood, Rumford; E. E. Holt, Sr., Portland.

Committee on State Hospitals—G. L. Campbell, Augusta; D. A. Robinson, Bangor.

Cancer Committee—E. H. Risley, Waterville; H. E. Thompson, Bangor; Mortimer Warren, Portland.

Committee on Health in Schools—Clarence Kendall, Augusta; A. L. Smith, Machias; J. A. Spalding, Portland; T. A. Foster, Portland; G. F. Rand, Livermore Falls.

Committee on Hospitals—F. W. Mitchell, Houlton; H. F. Morin, Bath; R. W. Wakefield, Bar Harbor.

Committee on Medical Defense—T. E. Hardy, Waterville; B. L. Bryant, Bangor; E. G. Abbott, Portland; F. H. Jackson, Houlton; E. V. Call, Lewiston.

Committee on Public Relations—C. A. Moulton, Hartland; F. N. Whittier, Brunswick; E. D. Merrill, Dover-Foxcroft; Richard Small, Portland; Clarence Kendall, Augusta; B. L. Bryant, Bangor; F. Y. Gilbert, Portland.

Committee on Medical Education—F. H. Badger, Winthrop; F. W. Mann, Houlton; D. A. Robinson, Bangor.

Necrologist—J. A. Spalding, Portland.

Delegate to the American Medical Association, 1924-1925—B. L. Bryant, Bangor; F. Y. Gilbert, alternate, Portland.

Delegate to National Council, Medical Education—E. H. Bennett, Lubec.

Delegates to State Societies—New Hampshire, J. A. Spalding, Portland; Vermont, Geo. B. O'Connell, Lewiston; Massachusetts, T. J. Burrage, Portland; Rhode Island, Carl Robinson, Portland; Connecticut, E. H. Bennett, Lubec.

Visitors to State Sanatoria—Francis J. Welch, Portland; R. A. Goodwin, Auburn.

THE CHAIRMAN: You have heard the report of your Nominating Committee, as presented by Dr. Bryant. How will you dispose of it?

Thereupon it was voted that it be accepted.

THE CHAIRMAN: Next is the report of the Budget Committee.

THE SECRETARY: The budget for next year as made up is as follows:

President's expenses,	\$100.00
Salary Secretary and Treasurer,	100.00
Stenographer and traveling expenses of Secretary,	300.00
Legislative Committee,	500.00
Expenses of Councilors,	100.00
Expenses of committees,	100.00
Maine Medical Journal,	800.00
Delegate to A. M. A.,	150.00

Public health clinics,	\$ 200.00
Medical defense,	500.00
Annual meeting,	300.00
Secretaries' meetings,	75.00
	<hr/>
	\$3,225.00

This represents our income for next year.

THE CHAIRMAN: You have heard the report of the Budget Committee, how will you dispose of it?

Voted, that the report be accepted.

THE CHAIRMAN: We will now consider the next place of meeting and are prepared to listen to suggestions.

DR. PHILLIPS, of Southwest Harbor: Mr. Chairman, I have the pleasure of inviting this society to Bar Harbor next year, and we would like to have it as late in June as possible on account of the hotels not opening until late.

THE CHAIRMAN: Are there any other invitations? (No response.)

On motion by Dr. Gerrish, it was voted that the polls be closed and the invitation accepted.

THE CHAIRMAN: We will next listen to the report of our Reference Committee.

DR. MARSH: Mr. Chairman and Gentlemen:

The Reference Committee is something new to me, and I presume it is new to a great many of the delegates here. As I understood it, we were to look over the different reports and find as much fault with them as we could, or approve them. I will read you just the headings of the reports and ask for approval. If anybody has any remarks to make, of course it is his privilege to do so.

We will begin with the report of the Secretary as printed in our JOURNAL. I move that it be approved.

Report of the Councilors. I move that that be approved.

Report of the Cancer Committee. I move that that be approved.

Report of the Committee on Hospitals. I move that that be approved.

Report on Inspection of State Hospitals. I move that that be approved.

Report of Committee on Health in Schools. I move that that be approved.

Report of Committee on Public Relations. I move that that be approved.

Report of Necrologist. I move that that be approved.

Report of Visitors to State Sanatoria. I move that that be approved.

Maine Medical JOURNAL, statement. I move that that be approved.

On motion, duly seconded, it was voted to instruct the Legislative Committee that the association did not desire to support any new legislative program, but that their activities should be confined to all matters pertaining to the medical legislation which might be detrimental to public welfare, and necessary appropriations made.

Adjourned.

Book Reviews.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923.

Cloth. Price, postpaid, \$1.00. Pp. 72. Chicago: American Medical Association, 1923.

This volume contains the unabridged Council reports that have been adopted and authorized for publication during 1923. Some of the reports, due to their technicality, have only been abstracted in *THE JOURNAL*; others have been published in entirety, and still others have never been published elsewhere.

In this volume the Council sets forth the reasons that certain proprietary remedies were found unacceptable for New and Non-official Remedies, the reason why it has been deemed wise to omit certain hitherto accepted articles from the present, 1924, edition of New and Non-official Remedies, and the volume also contains certain preliminary reports on products that have therapeutic promise, but are as yet in the experimental stage. There is a long report on the widely advertised Fleischmann's Yeast, which was not found acceptable. Benetol, another article that has had much mention in the daily press, receives attention. There are reports on apiol and mercurial oil, which have been omitted from New and Non-official Remedies. In addition to these types, there are preliminary reports on bismuth in the treatment of syphilis, ethylene as an anesthetic, peptone in the treatment of migraine, and tryparsamid; and there are reports of such general interest as that on intravenous therapy and that on progress and conservatism in therapeutics.

For one who wishes to be cognizant not only of what the Council has done, but why it has done it, the book will be very valuable, for it supplements New and Non-official Remedies with a more detailed account of the activities of the Council during 1923. New and Non-official Remedies records those proprietary remedies which have been accepted; Council Reports treats those which have been found unacceptable, and those which give promise of becoming valuable.

New and Non-official Remedies.

New and Non-official Remedies, 1924, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, \$1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

Every physician is continually bombarded with literature, scientific and otherwise, concerning the newer remedies. He has neither the time nor the opportunity to investigate all even of the more promising preparations, and obviously he cannot try them upon his patients without investigation. He must know the composition of the article, must know that the claims under which it is marketed are true; in other words, he must have some critical statement of the actions, uses and dosage as well as of the chemical and physical nature of the product.

This need of the physician is met in New and Non-official Remedies, which is the official publication through which the Council on Pharmacy and Chemistry annually presents to the American medical profession disinterested, critical information about the proprietary preparations which the Council deems worthy of recognition. In addition to the description of these proprietary preparations, the book treats those non-official remedies which, in the opinion of the Council, are worthy of consideration.

As the book is designed for ready reference, each preparation is classified, and each classification is preceded by a general and critical discussion of that group. These articles are written by those who may speak with authority on the separate subjects, and are a compilation of the best accepted opinions of to-day. Thus there is a general article on lactic acid-producing organisms in which the newly accepted *Bacillus acidophilus* preparations are discussed in connection with other accepted sour or fermented milk preparations. The animal organ preparations, the biologic preparations, the arsenic preparations, and so on, are discussed in such a manner as to make the accepted facts concerning each group readily available.

A glance at the preface of the new volume will show that the book has been extensively revised. In fact, each new edition of New and Non-official Remedies is essentially a newly written book, fully indexed.

Physicians who wish to know why a given proprietary is not described in New and Non-official Remedies will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book), there are references to published articles dealing with preparations which have not been accepted.

New and Non-official Remedies is a book that a physician who prescribes drugs cannot afford to be without. The book contains information about medicinal products which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

Applied Pathology in Diseases of the Nose, Throat and Ear.

By JOSEPH C. BECK. Published by C. V. Mosby Co., St. Louis, Mo.
Price, \$7.50.

Dr. Beck is famous as a clinical instructor and practitioner in the diseases of the ear, nose and throat, to which this very extraordinary book is devoted. First and last, the reader will turn and continue to turn to the very remarkable illustrations, which are worth the price of the book, and beyond it, for they delineate in no uncertain fashion so many diseased conditions of the organs in question as no letter press can so accurately describe. The coloring of one or two of the tinted illustrations gives some slight cause for complaint, but almost every one of these is ideal and instructive. The black and white drawings are nigh perfection.

Amongst the topics mentioned in the first part, we note: Acute diseases, fracture of the nose, as important in these days of sport, frost-bite, foreign bodies and sinusitis in various forms. Much is said on pharyngeal abscesses, an important branch of this specialty, injuries of the larynx given in for mention, foreign bodies in the trachea, and injuries, and from thence we pass to acute forms of otitis externa, interna and mastoiditis. Combined with all these pathological features, we find them accompanied with valuable running notes in the text, while the illustrations complete all possible instruction in these branches of disease.

Under the second part we note some two hundred pages devoted in the same order of arrangement as before, to the chronic diseases of the nose, including all possible deviations of septum, affections of the nostrils, pus infections, rhinitis and sinusitis in infinite variety. This chapter is indeed replete with information and good treatment. Among the chronic pharyngeal diseases we note attention given to Thornwaldt's disease, cancer and syphilitic affections, and notes on the tonsils. The chapter on the larynx goes into cancer, tuberculosis, polypus and paralysis, and, as everywhere throughout the work, the cases are illustrated with descriptive pictures. The section on the trachea mentions briefly a few rarities, including strictures of the œsophagus, whilst the remainder of the work is devoted in some forty pages to chronic diseases of the ear, with a long series of beautiful illustrations.

It is impossible in a brief notice of this sort to say much that ought to be said of this important book on the applied pathology of the diseases of the ear, nose and throat, for it is so unusual, so valuable, so epoch-making, that only a set of separate criticisms on each chapter could do the whole book justice, section by section. Dr. Beck has indeed produced for specialists in oto-laryngology a book well worthy of their attention, devotion, study and acceptance, as worthy for their shelves. And finally, we have to say that such a book, with its pictures, many of which are easily understood by clients, cannot but add to the practical advantage of the specialist who can own and show the book, as occasion serves for suggested operations.—J. A. S.

THE JOURNAL

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No. 2

*HEART DISEASES COMPLICATING PREGNANCY.

By BURTON E. HAMILTON, M. D., Boston, Mass.

Opinions expressed on the subject of heart disease complicating pregnancy, both in general medical discussion and in the literature, are often confusing and contradictory. This is due to many factors; for example, the relative rarity of such cases in any single man's experience and wide differences of judgment as to what constitutes a true heart disease, and also to variations in methods of reporting the results of cases.

My conclusions are based largely on four years of continuous clinical study of the cases suspected of having heart disease at the Boston Lying-In Hospital. Close to 1 per cent. of the pregnant women in Massachusetts have a serious heart disease. But this small fraction actually furnishes a respectably large proportion of all maternal deaths in pregnancy— $5\frac{1}{2}$ per cent. of the deaths reported in Massachusetts in 1921, as estimated by a Committee on Maternal and Infant Welfare.[†] This is probably too low an estimate; the proportion is probably somewhere between this and the figures at the Boston Lying-In Hospital, where roughly 20 per cent. of all the maternal deaths (for the past three years) is furnished by the cardiacs. Though only 1 per cent. of all pregnant women prove to have a serious heart disorder, roughly, 3 per cent. of all the pregnant women

*Read before the Maine Medical Association, June 26, 1924.

[†]Report of Committee on Maternal and Infant Welfare, *Boston Medical and Surgical Journal*, March 1, 1923, 188, p. 288.

have something about their hearts which troubles the physician enough to require that the heart condition be passed upon.

Following is a classification of the whole group of unselected suspected cardiacs (the 3 per cent.) that have been referred to me. They are all cases that have by now completed the pregnancy, and I have made a synopsis of the results, which includes (1) maternal death rate for a period of about six weeks after pregnancy has been terminated, (2) maternal disability as shown by actual signs of heart failure—decompensation—and (3) baby deaths, which I believe is the simplest way that is at all adequate for reporting such results.

There is a small group of miscellaneous cases sent for differential diagnosis; for example, with a hyperthyroidism or abnormal blood pressure findings, or hæmoptysis of unknown origin. Then four small distinct groups of true cardiacs.

Only seven cases out of more than 300 suspected cardiacs justified a diagnosis of *cardio-vascular syphilis*. One of these died and lost her baby. This is more a problem of syphilis than of heart disease.

Six (6) had *probable arteriosclerotic changes*. They were all successful.

Nine (9) had *congenital heart changes*. One of these lost her baby, otherwise they all succeeded, though two were disabled by decompensation for a part of the pregnancy.

The community is salted with individuals subject to *paroxysms of tachycardia*, and within any large clinical group of individuals one finds a few of these curious cases. Deaths in attacks are very rare, but one of these pregnant women (9 cases) died in an attack. She had survived dozens of attacks without difficulty. The fatal attack lasted almost forty-eight hours; during it she developed congestive heart failure, miscarried, and death occurred suddenly.

Added together these small groups make a respectable number, but the small groups are quite distinct, and it is only by many years of study in a special clinic that a large enough number of each group can be collected to yield valuable statistics.

The first large group of cases (88 cases), and this group is proportionately much larger in private practice, shows no true evidence of heart damage on direct examination of the heart. Some of these are cases that were troubled by frequent *extra systoles*, which, of course, can be disregarded. Most of them, however, fall into the class which we were taught to call during the war "*effort syndrome*," or neuro-circulatory asthenia. They are individuals that complain under mental or physical stress. They complained, often bitterly,

of undue breathlessness and fatigue on exertion. They were dizzy; many had fainting attacks; many had heart pain. Most of them ran rapid heart rates and made a poor response to effort tests; many had noticeable cyanosis, particularly of the hands. This group can be very troublesome in private practice; most of them are convinced that they have a serious heart trouble. Many of them are anxious to have pregnancy terminated, feeling that they cannot possibly survive, and I have known of a few cases that have had pregnancy interrupted honestly but unnecessarily. All these cases went through pregnancy successfully and had no special care. None had decompensation. Only two failed to have living babies. One can confidently give an excellent prognosis so far as the heart is concerned, no matter how severe the patient's complaints, however rapid the heart rate and however breathless on exertion the patient may be, providing the heart does not show one of *four cardinal signs*. These are simple, direct physical signs: (1) a definite enlargement; (2) a diastolic murmur; (3) a significant disorder of the heart beat, such as auricular fibrillation (or rarely paroxysmal tachycardia), and (4) true history or signs of congestive failure (decompensation). These are the cardinal points on which we have based an opinion of a significantly damaged heart in any individual case in pregnancy. The only serious exception to the value of these criteria in this group of cases—*youngish women*—is a bacterial-endocarditis, active, and fortunately this is a rare complication.

Actually, it is not possible to determine these points, simple as they are, infallibly in every case. Enlargement is a particularly difficult thing to settle in many cases of pregnancy; especially in the latter months one can often feel a forcefully beating heart, with the apex further to the left than appears normal, and find these signs changed after delivery. And a large number of cases have been sent to me that cannot be definitely determined to have a seriously damaged heart by these criteria, and yet show such abnormalities as a loud systolic murmur with a thrill, a loud, prolonged apical first sound, a third heart sound and more or less suggestion of enlargement. In addition, ten of these cases had a history more or less definite of rheumatic fever or chorea. Many of them had been told that they had a "leaking heart." Undoubtedly, some of these cases have heart damage, crumpled mitral valve leaflets, and others do not.

This undiagnosable group of individuals is a clinical entity. It is unsatisfactory, but it cannot be avoided in clinical work. And I believe we are only deceiving ourselves if we force arbitrarily a decision of significant heart damage or no significant heart damage in

the individual cases. Whatever we call them, if we believe they have mitral regurgitation, as most of us were taught to diagnose them, or if we admit them to be "undiagnosable," does not much matter so long as we recognize them as a group distinct from the cases with unquestioned serious heart disease, for, fortunately, they do very well in pregnancy (and in most physical strains, for example, operation). There was one maternal death (97 cases). This was unexpected and sudden, six days after delivery, and probably due to an embolus; no autopsy could be obtained. None of these cases had decompensation and they required no special care, except repeated heart examinations. Only two babies were lost.

One hundred and eighteen (118) cases had a diagnosis of *rheumatic heart disease of a severe type*. Nearly all (over 90 per cent.) of them had a mitral diastolic murmur—mitral stenosis; a few had an aortic regurgitation; about 15 per cent. had both. Many, of course, had a rheumatic history and enlarged heart, but the one constant physical sign was a diastolic murmur. Eighteen (18) mothers died. Forty-four (44) had at some time during the course of pregnancy gross signs of congestive heart failure (decompensation); not simply breathlessness and œdema of the lower extremities, but the true signs of a mechanically failing heart, namely, from congestion in the pulmonary viens, orthopnea with rales and perhaps a productive cough and hæmoptysis, and some congestion of the liver. Thirty (30) of these with gross failure recovered. Most of these that survived recovered completely, and so far as can be told they are as well as ever. But a few have never come back to full ability and are forced to live on a very restricted level of activity. Many of those that recovered completely required prolonged rest in bed; some of them were disabled for many months before delivery. Twenty-nine (29) of these cases failed to have living babies. About one-third of these dead babies were in cases where pregnancy had to be interrupted because of the mother's condition.

This does not represent the true results in severe rheumatic heart disease complicating pregnancy, for some of the cases were referred because they had decompensated; if they had endured pregnancy well we should not have seen them. It is an artificially severe group of cardiacs.

I have selected a group of 97 cases out of the total 118, that were seen relatively early in pregnancy and followed through carefully, and that when first seen were not in decompensation. The results are considerably better, namely, seven dead mothers; thirty failures, twenty-five of whom recovered; twenty-three failed to have living babies.

But these cases are selected, and perhaps this gives an unduly favorable picture.

I do not know what the maternal death rate actually is among women with severe rheumatic heart disease in pregnancy, but based on this experience among these severe rheumatic heart disease cases, even when cared for under good conditions, it does not seem that the death rate can be lower than 5 per cent., and it probably is between 5 and 10 per cent. This is, perhaps, a low death rate for a serious disease or operation, but in comparison with maternal deaths in general it is very high.

The cardiac death rate is about eighteen times as high as the death rate of all the cases in the Boston Lying-In Hospital, including the cardiacs and all cases with the other serious complications of pregnancy. No one could have seen these actual deaths, and the other recovered cases that decompensated for the first time in their life during pregnancy, without realizing that pregnancy is a serious risk to a cardiac.

Can one select from the serious rheumatic heart disease cases, if seen early in pregnancy, a group with a favorable prognosis?

Of course, with ordinary clinical judgment, one can select a group that has never decompensated in spite of leading a normally active life—cases that are willing and able to co-operate to the extent of giving up much normal activity, and if occasion arises to spend weeks in bed and have pregnancy interrupted if this is advised. So far as I can tell, one cannot give a prognosis within this group selected by simple clinical judgment. Various methods for further sorting these cases have been advocated; for example, various effort tests, to determine cardiac reserve and vital capacity determinations. We have recorded effort test results and vital capacity readings on every patient at each visit in this group, and I am unable to show any real value in prognosis in individual cases from these procedures.

I have seen twenty-one cardiacs die in direct associations with pregnancy; three died apparently as a result of obstetrical complications without heart failure; two died suddenly and unexpectedly. All the rest died in differing stages of pregnancy or puerperium with congestive heart failure.

In most essentials these cases differed in signs and history early in pregnancy in no way from many others which went through pregnancy successfully. Most of these cases had survived previous pregnancies. Six (6) were primiparas, and all of these six primiparas, as it happened, had led normal lives without decompensation until they became pregnant; two of them did not even know they had a heart disease when they became pregnant.

(Three (3) of these with decompensation had an active bacterial-endocarditis, but this apparently was grafted on an old chronic rheumatic lesion, and the active infection occurred, unforeseeably, during pregnancy.)

Only one of these cases had been clearly a poor risk early in pregnancy, or before pregnancy; this one refused therapeutic abortion at the fourth month, after a congestive failure from which she had been relieved, left the hospital against advice, failed again and died. There were several, however, that showed signs of distress weeks or months before death, which (on retrospection) were perhaps not regarded as seriously as they should have been.

Most of the deaths occurred, as was shown, during congestive failure. If one analyzes the cases that had congestive failure—decompensation—and recovered (30 cases), one finds that in the majority of cases the failure was sudden in onset and relatively unexpected and unpredictable. In a large fraction of these cases the failure was associated with an acute infection; for example, a tonsillitis, or one of the epidemic upper respiratory tract infections that go through the community from time to time. In a few, to be sure, the failure occurred suddenly after a mild but unusual exertion, such as a shopping trip in town, or while the patient's family was moving from one house to another—things which might have been avoided. But actually, in the majority of cases, the failure could not be foreseen.

(I have examined a number of cases carefully in office or clinic and found them, so far as could be told, in satisfactory condition, and then have seen them develop acute signs of congestive heart failure within the next twenty-four hours. Others have come to the office carrying on their usual activity, and have shown unmistakable signs of failure, of which they were unaware.)

PRACTICAL POINTS IN CONDUCT OF INDIVIDUAL CASES.

Individual cases differ so markedly in the problems presented that it is difficult to draw precise conclusions. Nothing startling as to the successful conduct of these cases can be deduced from all this experience, but a few direct practical conclusions show up clearly.

(1) Systolic murmurs can be disregarded if that is all the patient shows, no matter how loud they are.

(2) Every woman pregnant, or considering pregnancy, should be specifically examined for a diastolic murmur. (I have been called in several instances to see a pregnant woman with mitral stenosis and congestive heart failure, who was under the care of some thoroughly

competent physician, yet the patient had no knowledge that she had a heart disease until the decompensation occurred.) Some of these women had already borne children successfully; most of them had had a routine physical examination, which included the heart. Many cases with mitral stenosis have nothing in history or physical examination to suggest a heart damage except the low pitched, rumbling murmur heard at the apex, and only heard with the patient recumbent after exercise. This is a difficult physical sign to determine; it must be searched for, and may be found only on repeated examination. The only other common diastolic murmur—high pitched, early diminuendo—should be searched for along the sternum; it is usually easy to find it, but it is easy to overlook it if one does not intentionally hunt for it.

WHAT SHALL ONE TELL A WOMAN WITH A DIASTOLIC MURMUR WHO IS CONSIDERING PREGNANCY?

If she is willing to co-operate and in a position to give up work and perhaps go to bed for long periods at any time, we can offer her an excellent chance to survive pregnancy, but there is an appreciably greater risk for her than for normal people; the chances at the very best from this experience are twenty to one in her favor. There is a possibility that she will survive and have a baby and be partially permanently disabled. Actually, in view of the baby deaths, she has perhaps not better than a four to one chance of having a live baby to show for her risk.

Clearly, it is a matter for the patient to decide. But if we are specifically asked to advise in an individual case, there are two points of view which I feel are worth remembering. The usual woman of child-bearing age with mitral stenosis or aortic regurgitation, or both, had her heart disease in childhood, and she is one of the successful minority of such children with rheumatic heart disease. So far as we can tell from present knowledge, more than half such children fail to reach maturity. It seems perhaps a little unwise for such a person to tempt fortune again. (I have repeatedly seen such cases, who won out in the struggle against rheumatic heart disease through childhood to a useful active maturity, fail miserably in an attempt to breed.)

Dr. St. Lawrence, of New York, has shown that rheumatic heart disease has a definite tendency to run in families. Some of my cases have children who already in turn have rheumatic heart disease. From the point of view of the community at large, there is little to make one desire people with rheumatic heart disease to breed.

From the individual point of view, she is a cardiac and she is

always going to be one; she has one life to lead. The majority of such women go through an individual pregnancy successfully. She has perhaps four chances to one of being as well as ever three months after delivery and with a live baby to show for her trouble. It is certain that many cardiacs will take the risk gladly in a full knowledge of the chances. It is also certain that many who have taken the risk blindly would not have attempted it had they known the possibilities.

If a cardiac patient has survived one or more pregnancies, it is not in the least a guarantee that she will survive another. This should be tactfully presented to every prospective cardiac mother with a family. Repeated pregnancy repeats her risk. And it can easily be shown that repeated pregnancies would logically result in the eventual disappearance of a group of cardiac women—any individual will probably succeed in killing herself if she takes the risk repeatedly (though one of our patients with mitral stenosis has survived eighteen pregnancies).

Unfortunately, most cardiacs report for advice after they have already become pregnant.

UNDER WHAT CONDITION SHOULD ONE INTERRUPT PREGNANCY IN A CARDIAC?

Individual problems and obstetrical factors vary so much that it is impossible to deduce any but the simplest rules for interruption of pregnancy.

No cardiac in this series, however severe the direct evidence of heart disease, has had pregnancy interrupted that has not had clear evidence of failure, past or present. Not all of such cases have been interrupted. And I have seen a few cases go through pregnancy successfully that had had heart failure in the early months of the pregnancy or in previous pregnancies.

There is, of course, a death rate in interruption of pregnancies. Two have died in this series out of about twelve interrupted at or before the fourth month, but of course this series represents the worst risks. Undoubtedly, the risk is slight among the cases who have not failed. But a death from therapeutic abortion is a calamity; it is the worst possible result. Unless a patient has then a definite failure or a previous failure, it does not seem conservative to interrupt pregnancy for a cardiac disorder.

MEDICAL CARE OF CARDIACS IN PREGNANCY.

- (1) Avoidance of ordinary obstetrical complications, the routine prenatal care.
- (2) Avoidance of mechanical over-strain of the heart. To be

successful every case must have an individual routine to follow. All such routines should, I think, have the following simple basic rules. Ten (10) hours in bed; one-half hour rest after each meal; no shopping; no bundles to be lifted or carried. There should be another woman in the family throughout pregnancy to enable the patient to go to bed at a moment's notice. Moving from one home to another should be done only with the prospective mother away from home.

(3) Avoidance of infectious diseases; easy to say, hard to accomplish. But for this purpose one can at least warn all patients to keep away from gatherings of all sorts—church, theatre, etc., to allow no one to visit them who has a "cold," and to isolate members of the family who come down with acute infections. They should be instructed that if they catch cold, or have a sore throat, or notice signs of decompensation, they are to (1) go to bed, (2) call the doctor.

(4) Recognition of early signs of failure. Every true cardiac should be examined at least once a week during pregnancy. Though, as was shown in the majority of cases, decompensation occurs suddenly and unexpectedly, in some its onset is slow and gradual. And where there is warning, (a) the first warning sign is apt to be persistent rales at the bases of the lungs, and with this often a cough. (Sir James MacKenzie mentioned persistent rales at the dependent portions of the lungs as the first sign of failure and my experience bears this out decidedly.) (b) An occasional case with mitral stenosis expectorates a small amount (a few drops) of bright red blood, particularly in the morning, and has no other sign of failure. A few such cases have continued without signs of failure except this for a long period and then failed. Some have expectorated blood through the latter part of pregnancy (without other signs of failure) and stopped doing it thereafter. Others have later developed severe decompensation. It is a sign of threatened failure, at least. (c) Nose bleed is a fairly common accompaniment or precursor of congestive failure in this group of cases, but it is not reliable. Where it occurs I believe that it indicates a further decrease of activity and more frequent examinations for other signs. (d) A number of cases show nothing on physical examination, but tell a story of a smothering, usually at night, with cough and perhaps expectoration which may be blood tinged. Each case should be specially questioned for orthopnea and cough on exertion.

One can expect no more definite warning than the above. Such cases with these early signs of failure—rales at the bases of the lungs, hæmoptysis, or a story of attacks of smothering with cough—should be put to bed at once. Many cases that suddenly or gradually

develop severe congestive failure lose all their signs promptly after being put to bed.

A number of such cases get over their failure and never have it again, going through labor or operative delivery safely; many others fail again as soon as they are allowed even such activity as walking about the house. An occasional case, completely relieved of failure, will sink into it again in spite of hospital care and even rest in bed.

A patient with congestive failure in pregnancy is a troublesome problem at any stage of pregnancy, but it seems to me an inviolable rule that if a patient has had congestive failure during pregnancy she belongs in a hospital or in a room, leading a bed and chair life until the pregnancy is terminated. It is usually much harder to get them over a second failure. The few maternal deaths that I have seen that I believe might have been avoided were in patients who failed relatively early in pregnancy, recovered rapidly, were allowed to be up and about, failed again and died.

In these actual cases that I have seen where failure occurred before the fifth month, it has usually been decided to interrupt pregnancy. Where failure occurred later than this and the patient recovered under treatment, we have kept every case, both in private and in the clinic, in hospital until after delivery, in the attempt to get a viable child. Pregnancy has been interrupted when this was believed to be the case.

It is a fair rule, where possible, to rest every case of congestive failure for three weeks in bed after the signs have cleared, before operation or any avoidable activity (such as getting out of bed). A small but definite number of patients, particularly with mitral stenosis, have emboli from thrombi formed within the heart during a congestive failure. During a year's work with cardiacs of all sorts I encounter a good many such accidents, not all fatal. Some are left with a hemiplegia; two during the last year have had to have a leg amputated; three others died from an embolus to the leg without operation.

Some cases cannot be made rid of their failure, and in such a case or when a case is relieved of failure and then has slipped into it again in spite of hospital care, it is anyone's guess when the least unfavorable time for interference has arrived. It has been necessary to operate some of these individuals with acute failure present. And I believe we have been extraordinarily fortunate in having as few deaths as we have had. But in general, it is the opinion of all of us that every effort should be made to improve the patient's condition before interference during failure is attempted. The majority of all

the cases seen in failure can be improved; sometimes a week goes by before any evident improvement.

Medical treatment of the failure has been: absolute rest in bed with special nursing where indicated, sedatives, oxygen, venesection, digitalization. Most cases improve with rest and sedatives; a few have required venesection before improvement began. We do not give digitalis routinely to all the cardiacs, not even to all those who have decompensation. Every case that has an absolutely disorderly heart rhythm, auricular fibrillation, is thoroughly digitalized. These cases are surprisingly few in pregnancy; only eight out of this series have had auricular fibrillation. This restriction of the use of digitalis is, of course, based simply on personal experience and opinion, but with increasing experience I find we give digitalis less and less frequently, except in auricular fibrillation.

***INTESTINAL OBSTRUCTION.**

BY DR. C. E. RICHARDSON, Skowhegan.

The reason why I selected the subject of "Intestinal Obstruction" is because it has been the most serious surgical affection of the abdomen that I have had to contend with. Other surgical affections tend to a rapid recovery when proper measures are instituted. Being conservative has not the same risk and delay is not likely to be so disastrous. But in intestinal obstruction death is inevitable unless relieved, and the earlier it is done the better the chance of recovery. Delay in seeking operative relief is, therefore, plainly the cause of the persistently high mortality. The patient is very apt to spend the first twenty-four or forty-eight hours in prescribing for himself, thinking his symptoms will be relieved by hot water bags, enemas and laxatives.

Too often we carelessly treat the early symptoms of intestinal obstruction as one of constipation or of ptomaine poisoning, yet even the careful and conscientious doctor, with a case showing the early symptoms of obstruction, hesitates to advise early surgical interference because all the textbook symptoms, as fecal vomiting, rapid pulse, visible peristalsis, Hippocratic facies and collapse, are not present. It has been my experience that when I saw a case with the cardinal symptoms I have a case that will be turned over to the undertaker in a few hours.

*Read before the Maine Medical Association, June 26, 1924.

When toxic symptoms begin to develop in a case of intestinal obstruction it means that the circulation of the gut has begun to be interfered with and the chance for a successful operation is becoming more and more remote. There are cases where there is an apparent obstruction, but which in fact are intestinal stasis and are of renal origin. The hernia cases are generally easy to diagnose and are fewer to-day, as the layman understands the danger and knows that there is apparent safety in corrective surgical measures.

The most difficult cases to diagnose are those that take place in the abdomen, due to deformities, bands of adhesions, volvulus, intussusception, internal hernias, through congenital mesenteric openings or through the diaphragm, and those due to growths. Many of this class of cases have symptoms over a long period of time, and this is where the X-ray aids us.

Cases following abdominal operations are a serious tragedy and one dreaded by all surgeons. In this class there is often a lack of promptness, and the symptoms are allowed to go on until the patient is so ill that the chance of recovery is doubtful. Obstruction occurring in the first few days after the operation and the patient being in the hospital under the eye of the surgeon, if death occurs we must charge it up to the surgeon for not taking the necessary steps to remedy it.

The symptoms of acute intestinal obstruction which are almost invariably present from the beginning are vomiting, constipation and abdominal pain. The vomiting is not relieved by lavage. It becomes bile stained, then darker until fecal in character. When it becomes fecal the condition of the patient is such that even the most skilled surgery will result in a very high mortality. A patient may remember of having had a good stool the day before, although as a rule there has been no stool for several days. Enemas may have a slight fecal return at first, but later return clear and no flatus expelled. Abdominal pain is a prominent symptom, although it may vary in its severity. It is usually cramp-like, occurring over the whole abdomen. In its severe form it is often accompanied by vomiting which does not bring relief. The pain is aggravated by food and cathartics and is worse the first few days, then lessens.

Tympany and distention are rare in the early stages. They usually are late symptoms and signify absorption, strangulation or peritonitis. Shock means complications have taken place. A rapid, feeble pulse and symptoms of collapse are evidence of strangulation, gangrene or peritonitis. Leukocytosis is moderate in early stages, marked in later stages when complications have arisen.

The important factors in diagnosis:

1. History.
2. Peristaltic pain, increased by food or cathartics.
3. Persistent vomiting, not lessened by lavage.
4. Constipation, not relieved by enema.
5. Later, abdominal distention, facial expression, weak heart action, low blood pressure and leukocytosis.

Some of the conditions which must be differentiated are:

1. Acute peritonitis from any cause.
2. Renal colic.
3. Gall bladder colic.
4. Poisoning from food or other agents.
5. Acute hemorrhagic pancreatitis.
6. Pyloric stenosis.
7. Uremia.
8. Lead colic.
9. Gastric crises of tabes.

In treating intestinal obstruction it is generally accepted that some form of drainage operation, to relieve this dangerous feature, should be performed before the radical operation is undertaken.

The following are histories of two cases which were of special interest to me.

CASE 1. Male, age twenty-two, apprentice in textile mill. Saw in consultation at 8.00 P. M.; diagnosis of acute appendicitis with peritonitis. Operation performed that night. Found a ruptured, gangrenous appendix, with thick greenish pus walled off. Appendix removed and one cigarette rubber drain left in for drainage. For three days patient vomited. I washed out his stomach every two or three hours with sodium bicarbonate solution until his vomiting ceased. Bowels moved several times. Temperature ranged from 100 to 102.6; pulse regular but weak.

Eight days after the operation patient began to complain of severe abdominal pain situated mainly over the right lower quadrant. Vomiting began again, enemas failed; anything by mouth increased the vomiting, cathartics failed. A diagnosis of obstruction was made, but a surgeon from a distant state being in town was called in for consultation. He thought we had a case of acidosis rather than obstruction. Urinary examination failed to show anything remarkable. With a difference of opinion, Dr. Mixter, of Boston, was called. He agreeing that it was a case of obstruction, an immediate operation was advised. The drainage opening was enlarged, and a loop of intestine which presented itself was seized. A Mixter

tube was invaginated, with a purse-string suture to hold it in place. Lavage was performed every two hours, glucose 5% by rectum, large amounts of normal salt solution injected under the skin. Vomiting stopped after thirty hours, the fourth day he had a movement of the bowels, and on the fifth day the tube came out. The intestinal opening closed in a very short time, and recovery was rapid from this time.

The interesting point in this case was the persistent vomiting for three days after appendectomy, then five days of normal convalescence, followed by intestinal obstruction, then the drainage operation and the relief of the obstruction without a radical operation.

CASE 2. Male, age fifty-one, admitted to the hospital Nov. 22, 1923, 6.00 P. M. Accidentally shot in the abdomen with buckshot. A shot went through the left side of the abdomen, piercing the left kidney and making six puncture wounds through the intestines. A high left rectus incision was made, openings in the intestines closed and one cigarette rubber drain left. The shot was removed from the back a little to the left of the spine. Patient was discharged December 10th. Jan. 13, 1924, same patient was admitted, suffering with pain over McBurney's Point. I had seen him in a previous attack of appendicitis. Temperature, 102.8; pulse, 104. A gangrenous appendix was removed; no pus. Abdominal incision closed without drainage. Discharged Jan. 31, 1924.

February 29th I was called to see his wife, who was vomiting and had abdominal pain; relieved after one-half grain of morphine had been given. The next day this man began to vomit in the same manner as his wife. She was still vomiting at intervals of about every two hours. He vomited twice that day, but also complained of some pain through the abdomen. The symptoms of both were the same. She had several movements; he had one, according to his story. The third day her symptoms abated and she sat up, and the next she was about her work. His symptoms continued and he grew weaker. Enemas were given, which came back colored, but no hard fecal matter. March 4th I told the relatives that he had intestinal obstruction and it was only a matter of time. Two consultants felt that an operation was useless. March 6th his abdomen was extended. He vomited about every three hours and had great pain. His pulse was stronger than on March 3rd and 4th, probably due to the digitalin that was being given. I told him that his only chance was by an operation, and that little hope could be held out to him even with that. Two hours later they called me and said he had decided to take the chance. He was removed to the hospital

and operated upon at once. A strong band of adhesions completely closed the intestines about seven inches above the ileocecal valve; this had to be cut. The intestines were dark and enlarged, but after freeing the obstruction color began to come back and the contents of the intestines began to pass through. Lavage every two hours, normal salt solution given subpectoral, 5% glucose by rectum. The abdomen was closed and the patient was discharged April 9th. He went to work as a weaver June 2nd.

This case I fell down on, due to his wife becoming sick first. They thought it was due to some canned milk that they had made a stew with, and days passed before he was operated upon. Due to the slow toxemia I was able to get by:

Many of the cases that I see are ones that have had symptoms for several days. If many of the textbooks were revised and paid more attention to early symptoms rather than to late ones, I am sure that many more lives would be saved.

Note.

INVITATION TO AMERICAN PHYSICIANS BY INTER-STATE POST GRADUATE ASSEMBLY.

This Association is supervising an Interstate Post Graduate Clinic Tour to Canada, British Isles and France, to start May 18, 1925. Leading teachers and clinicians of Canada and Europe will arrange and conduct clinics and demonstrations in the following clinic cities: Toronto and Montreal, Canada; London, Liverpool, Leeds, Manchester and Newcastle, England; Edinburgh and Glasgow, Scotland; Dublin and Belfast, Ireland; Paris, Lyons and Strasbourg, France.

Besides the main tour, special tours to practically all the leading centers of Europe will be arranged. Sight-seeing trips to all places of interest in the countries visited will be included in the regular tour.

Cost of tour, including first-class hotels, board, steamship, clinic arrangements and all ordinary traveling expenses, under \$1,000.00.

The tour is open to physicians in good standing in their state societies, their families, and friends who are not physicians.

For information, write the Managing Director, William B. Peck, Freeport, Illinois.

Necrology.

CHARLES ASA PALMER.

Brunswick, 1867-1923.

Once in a while physicians suffer from melancholia, and during attacks of this sort, and when at the end of their ability to resist, they die suddenly self-willed. Such an instance is that of well-known Dr. Palmer of Brunswick, occurring December 17, 1923. He had given up practice at Brunswick for two years previously and traveled to and fro in search of health, but it was in vain. So he removed to Bath for the remainder of his life.

He was a son of Asa Clarke and Annie Cushman Palmer, of Bath; was born in that city September 7, 1867, educated in Bath and in Denver, Colorado, whither his parents had gone for a change of climate. Returning he finished his education at Bath and at Kent's Hill, studied medicine at the Bowdoin School, and obtained his degree there in 1892. His life was uneventful as a physician, for he practiced first in Phippsburgh, then in Bowdoinham, and finally in Brunswick, where after post-graduate courses in New York, he devoted much time to rhinology, with its allied operations. He was U. S. Pension Examiner also for several years.

Finding his health declining, he traveled around the world, and to and fro from Europe, but all in vain. He started away melancholic, and returned in the same condition.

He married, some years ago, Miss Mary Hannah Sampson, of Portland and Bowdoinham, and is survived by her.

In his earlier years he was a very popular youth and man, but later on became mostly a pronounced recluse; living in a shadow most of the time.—J. A. S.

STEPHEN YATES WEIDMAN.

Rockport, 1853-1923.

After practising some thirty years actively in Rockport, Dr. Weidman died suddenly December 30, 1923, although he had been in rather poor health during the previous two years of his life. He was, during all these years, an active member of the medical profession in Knox County and held in the highest esteem as a practitioner in Rockport.

He was born in 1853, in Etna, Tompkins County, New York, the son of Dr. John Skimahorn and Catharine Hynds Weidman, educated in Dryden, New York, and studied there with a well-known practitioner, Dr. Briggs. He was medically graduated at the medical department of

the University of New York, and after post-graduate courses in Bellevue he settled and practiced, first in Cuyler then in Marcellus, both in New York State, and finally in Rockport, Me.

Any account of the successful medical career of Dr. Weidman which fails of a notice of his wife remains incomplete, and for that reason it is next to be said that in 1891 Dr. Weidman married Dr. Clara Talbot, of Englewood, N. J., who, after a course of trained nursing, obtained a full medical degree at the University of Buffalo, where she was much encouraged by the famous Dr. Roswell Park, then became the resident physician of a woman's hospital in Buffalo, and finally matron of a large training school for nurses at Englewood, N. J. Immediately



DR. WEIDMAN.

after her marriage to Dr. Stephen Yates Weidman, she settled as his medical partner in Rockport, her native town, and together they practiced the science of medicine in all its branches for many years. She excelled in surgery and obstetrics; he devoted his time chiefly to medical practice. She died suddenly in 1920, from an affection of the heart, and he worked along as well as he could for the remainder of his life. The partnership of Dr. Weidman and his wife was very successful and abundantly provided with patients. They are survived by a daughter, who still lives in Rockport.

So briefly, these two physicians lived a quiet life in a small center of people with a large surrounding country clientage, and therein gained the affectionate regard of a large number of clients and personal friends.

—J. A. S.

JOURNAL OF MAINE MEDICAL ASSOCIATION

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-

PHYSICIANS IN THE LEGISLATURE.

You can hardly look into a copy of any state medical journal throughout the nation without reading something about the need of physicians in the Legislature. It never occurs, however, to those who advocate this useful idea that physicians who attend the Legislature lose their income and practical skill from their presence in legislative halls to work for the benefit of the rest of us. Some physicians can do much for the profession, but all of them in the Legislature are hampered by direct loss of income from trying to do good work for the rest. On top of all that, the physician in the Legislature is at the mercy of the log rollers and lobbyists, and unless a very able man, a man of eloquence, of personal charm and influence, all that he accomplishes is small compared with his ideals when elected. In order to do anything for the public health, we must either pay our medical legislative members for income lost, or we must hire legal representatives to look out for our ideals.

And yet there is still another chance which has great medical value, and that is the permanent presence in the Governor's Council of some able physician, who shall understand how to guide that body and the executive toward a steadfast good for the public health and the prevention of epidemics and superabundant charlatanism. A wise councilor, without being too obstinate, could show off the human follies of the past, and argue that as they all had had their day, so, too, the clamorous cults of to-day would die from ultimate inanition when once exploited as useless in the long run of human ills. We therefore urge every medical association member in Maine to discuss this with his local or county legislator, senator or representative, in order to obtain a physician of high standing in the community of Maine to be a member of the Governor's Council for 1925 and onward.

J. A. S.

SANITATION OR VACCINATION AGAINST SMALLPOX.

As to the future of vaccination there may be some doubts, but the need, at least, of doing it in the safest way should not be in doubt. Percutaneous or intracutaneous vaccination has come into the practice of medicine, and deserves to be studied by all who vaccinate. A brief paper by Gettinger, in the *New York Medical Journal* for August, speaks plainly of the great advantage of this method when compared with the former scarification method, with its disfiguring scars, occasional infection from rubbing with the fingers, and constitutional reaction off and on. Furthermore, this method can be used at any season of the year, and parents oppose it less vehemently than the former method. We urge that it be given a trial, for, surrounded as we are by steady opposition, it is our duty to the community to utilize the best and the safest means of prevention of smallpox from our medical point of view.

We suggest now, to be read at the annual meeting in 1925, a paper on this topic, a scholarly paper, discussing the idea that sanitation, rather than vaccination, prevents smallpox. Let the writer take as his text the fact that in the five years, 1919-1923, Massachusetts had 114 cases of smallpox, whilst Michigan had 15,000 and California 16,000. Are the people of California and of Michigan *dirtier* than those of Massachusetts?

Such a paper could also discuss the inoculation of animal filth into humans, as mentioned lately in a Portland newspaper, and ask if animal filth is filthier than human filth. Is cow-barn manure filthier than the stench from a human privy in the country on a summer day? Is animal urine in a barn filthier than the asparagus-gussed urine or the diabetic urine or the bladder-infected urine of humans?

What a text for a brief, pertinent, clear paper for our Bar Harbor meeting! Will any member of our Association accept this challenge to come forward with simple arguments to show that vaccination prevents, whilst sanitation alone is not of the slightest value as a prophylactic against epidemics of smallpox.

J. A. S.

County News and Notes.

SOMERSET.

SOMERSET COUNTY MEDICAL ASSOCIATION.

The annual meeting of Somerset County Medical Association was held at Lakewood, August 7, 1924.

Dinner was served at 1.00 P. M. in the Arcadia Tea Rooms, followed by a business meeting and election of officers. The meeting was presided over by Dr. H. E. Marston.

The report of Secretary and Treasurer was read and approved.

Applications of Dr. J. Clifford Boyce, Solon, Dr. Ormel DeVeaux, Bingham, Dr. Richard F. Eager, Harmony, and Dr. Burton O'Kinney, Bingham, were received and referred to the Board of Censors.

The following officers were elected:

President, Dr. R. C. Brown, Pittsfield.

Vice-President, Dr. E. F. Pratt, North New Portland.

Secretary and Treasurer, Dr. C. Earle Richardson, Skowhegan.

Censors, Dr. H. W. Smith, Norridgewock; Dr. G. C. Young, Skowhegan; Dr. F. L. Tozier, Fairfield.

Delegates to State Convention for two years, Dr. C. E. Richardson, Dr. L. A. Dascombe.

Dr. F. W. Mann, of Houlton, President of the Maine Medical Association, was present and spoke to the gathering.

Dr. N. R. Mason, of Boston, read a paper on "Some Present-Day Problems in Obstetrics and Gynecology." An interesting discussion followed his paper.

Dr. W. F. Barry, President of the Rhode Island Medical Association, addressed the society. Dr. Barry was very interesting and a forcible speaker. He warned us of the growing danger that was taking place, wherein district school, public health and industrial nurses were performing the work that should be done by doctors.

The following doctors were present: Brown, Caza, Dascombe, Earle, Ellingwood, Gilbert, Marston, Milliken, Moulton, Norris, Pratt, Richardson, Robinson, Sawyer, Smith, Spear, Stinchfield, Strong, Tozier, W. H. Walters, Ethel Walters, Young, Boyce, DeVeaux, Eager, Kinney.

Visitors: Dr. E. D. Merrill, Dover-Foxcroft; Dr. F. E. Mann, Houlton; Dr. E. H. Stevens, Cambridge, Mass.; Dr. W. F. Barry, Woonsocket, R. I.; Dr. N. R. Mason, Boston.

These, with their ladies, made a total of fifty-six.

Book Reviews.

A Manual of the Diseases of the Eyes for Students and Practitioners.

By Dr. C. H. May, New York. William Wood & Co., Publishers, New York. Price, \$4.00.

Our congratulations to the eminent author of this, one of the best of the smaller handbooks on diseases of the eye ever published. We are much pleased to learn that this represents the eleventh edition of this commendable work and represents the one hundred and fifty thousandth copy.

Dr. May's work has from its original appearance maintained a permanent place in works on the eye and its diseases, because within a small compass it contains everything that any student or medical practitioner could possibly ask for, face to face with such eye diseases as they see in the hospitals, or meet with in private practice. The book of some four hundred pages, with many colored pictures and in the text is a complete epitome of the subjects up to date. It is, finally, well papered, well printed, and exceedingly well indexed. Equipped with this on his desk, the busy man can find what he wants in a very short time and can use its contents understandingly. It is, first and last, an excellent work, and nothing better can be found to take its place in the esteem of the profession.

J. A. S.

Goiter: Non-Surgical Types and Treatment.

By Dr. Israel Bram, Instructor of Clinical Medicine, Jefferson Medical College. The MacMillan Company, 1924.

We are exceedingly obliged to the writer of this noteworthy book for a copy for notice in our JOURNAL. The aim of its publication is to advance the idea that where one thyroid demands the use of the surgeon's knife, there are many which require the skilled and careful attention of the internist in medicine. Upon this theme the writer builds a noteworthy volume of about five hundred pages, well printed, well indexed and provided with an abundance of literary references. Chapter follows chapter in sequence on the anatomy

of the thyroid, its physiology, diagnosis and classification of goiter and so on.

Following these chapters we proceed to exophthalmic goiter; its causes, symptoms, the circulatory symptoms as involved and the nervous symptoms. A large chapter is devoted to the eyes in exophthalmic goiter and another to innumerable bodily symptoms of the disease. Other chapters exhibit the guiding principles in the non-surgical management of exophthalmic goiter; prevention, hygiene, diet, medicinal and local treatment, and so on. A chapter on psychotherapy offers much of interest to the internist, and there is a long list of case histories, follow-up cases and cures in Chapter XXVII which are well worth careful attention. The work concludes with a careful chapter of conclusions concerning the non-surgical management of exophthalmic goiter.

This valuable contribution to the topic under consideration is well worth careful reading, and in conclusion we emphasize particularly the many excellent illustrations in the text and the abundant index.

J. A. S.

NEW AND NON-OFFICIAL REMEDIES.

The following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Coleman & Bell Company:

Gentian Violet Improved Medicinal.

Hynson, Westcott & Dunning:

Meroxyl:

Meroxyl Tablets—H., W. & D.

Jensen-Salsbery Laboratories:

Rabies Vaccine (Human) Phenol Killed.

Eli Lilly & Company:

Oridine:

Oridine Tablets.

H. A. Metz Laboratories:

Silver-Salvarsan, 0.6 Gm. ampules.

National Aniline and Chemical Company:

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Parke, Davis & Company:

Diphtheria Toxin Antitoxin Mixture—P., D. & Co., 0.1 L+

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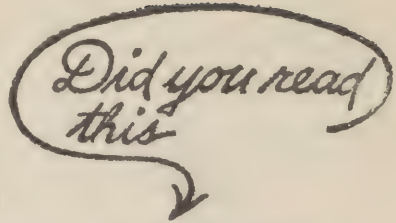
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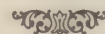


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The Journal assumes no responsibility for opinions expressed by the authors.

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No. 3

*THE ENDOCRINES.

By DR. H. W. SAMPSON, Bangor, Me.

This paper is a general consideration of the endocrines as regards the hair, teeth and nails.

It is thought that primitive man had his entire body covered with a shaggy coat of hair. As he began to wear skins for protection, this growth gradually diminished until only hair on the head and face remained, with some on the pubis and axilla to take care of perspiration. Now abundant growth of hair on the head indicates good thyroid activity, while scanty growth of hair, or hair that falls out easily, shows lack of thyroid secretion, providing that there is no disease of the scalp.

Red hair is thought to be due to increased adrenal secretion. Lack of hair on the face, axilla and pubis in the male indicates pituitary and gonardal insufficiency. Growth of hair on the face of the female indicates ovarian dysfunction. Good teeth and nails imply a normal thyroid and parathyroid secretions, while brittle nails and teeth that decay easily show a deficiency of these glands, especially the parathyroids. Large canine teeth are noted in adrenal hypersecretion and small incisors point to gonardal insufficiency.

ENDOCRINE BALANCE.

We may compare the whole system to the parts of a finely balanced mechanism, which are very intimately associated and dependent upon each other to a certain extent, as the gonads and the thyroid, or the

*Read before the Penobscot County Medical Society, March 8, 1924.

thyroid and the pituitary, especially the anterior lobe, while certain other parts act as governors or checks to others, as the ovary and the mammary gland. And if one part or gland is disordered, the whole mechanism or system is affected and thrown off balance. Glandular dysfunction is rarely monoglandular. We must admit that the endocrines play a most important part in the human system, when, for instance, we realize the fact that the entire amount of blood in the body passes through the thyroid every hour.

THE THYROID.

The thyroid consists of two lateral lobes which are joined by a narrow central portion called the isthmus. It is situated in the front and sides of the neck. Each lobe is conical in shape and extends from the fifth or sixth tracheal ring to the junction of the middle and lower thirds of the thyroid cartilage. Its weight is about 30 grams, although it is relatively larger in women. The gland is present at birth, functions through childhood, increases its activity at puberty and continues till about 45, when it gradually decreases its secretion and atrophies in old age. The internal secretion of the thyroid exerts a profound influence upon basal metabolism. It promotes the skeletal growth and mental development of the child and causes growth of the hair, teeth and nails. It combats toxemias and is enlarged in focal infections, especially about the mouth. It normally enlarges in pregnancy, and if it does not enlarge there is a tendency to eclampsia in the mother and poor development in the child. One of the principal functions of the thyroid is to take iodine from the blood, store it and form the substance thyroxin which Kendall says is the generator of the rate at which we live. It is a cardiac stimulant, and increased secretion causes tachycardia.

Thyroid enlargement may be due to hypertrophy, acute inflammation, increase in colloid, or cystic degeneration. It also may be adenomatous or malignant. Enlargement occurs in the ratio of 60 per cent. in women and 40 per cent. in men. The size of the gland is no indication of its toxicity. A large thyroid may be hyposecreting, while a small intrathoracic goitre may be highly toxic.

When we speak of hypersecretion and hyposecretion of the thyroid we usually have in mind two pictures: The first the individual with exophthalmos, rapid heart action, loss in weight and nervous irritability—the thyrotoxicosis or Graves' disease case. The other the stout, middle-aged woman, with heavy, mask-like features, large hands and feet, coarse, thick, dry skin and mental apathy—the myxedematous case. Or still another picture, the dull, stupid, obese, drooling, unattractive child—the cretin.

But there are various other conditions dependent upon the thyroid secretion that we wish to speak of more especially this evening.

Hyperactivity of this gland causes serious mental excitement, sometimes mania, while hyposecretion tends to produce melancholia. Patients with hypersecretion are always too hot and suffer greatly from heat in summer. There also may be hypertension.

THE THYROID AND OBESITY.

It is becoming a fad to take thyroid extract to reduce weight. And most of the patent medicine waist-reducers contain more or less thyroid. Now obesity may be due to overeating with lack of exercise, to heredity or to thyroid hyposecretion. It is not good practice to use thyroid for obesity without first making a basal metabolism test. Feeding thyroid extract to patients with normal thyroid activity may from over-stimulation cause a dangerous goitre. This preparation should not be used except on the advice of a competent physician.

At the menopause in women, if the thyroid hypersecretes, hot flashes, rapid heart action and general nervous disturbances are in evidence. If the thyroid is hyposecreting at this time the woman takes on fat. Hypothyroidism may cause vomiting of pregnancy. Men who rapidly take on weight at from 45 to 50 have thyroid insufficiency. Hypothyroidism also causes dry skin and eczema about the nose, ears and mouth in children and is a cause of chronic eczema in adults.

Thyroid deficiency may cause chlorosis, a menorrhœa and some depressant forms of hysteria. It is a frequent cause of headaches, profuse uterine hemorrhage and epilepsy occurring at the menopause. The train of symptoms seen in senility, as dry, shriveled skin, lowered metabolism, arteriosclerosis and sluggish mentality, is due to hypothyroidism.

Uses:—Extract of thyroid is indicated in all cases of myxedema, cretinism, and the various phases of hypothyroidism. Thyroxim is probably the best preparation to use, although good results have been obtained from the desiccated gland and extracts of the dried gland. Its administration should be watched carefully for symptoms of hyperthyroidism, the first to appear usually being a feeling of constriction about the neck and rapid heart action.

TREATMENT OF THYROTOXICOSIS.

While it would seem like carrying coals to Newcastle, nevertheless some goitres are helped by feeding thyroid. Others do well with extract of thymus, and others with iodides. Rest in bed for a month,

ergotin 1 gr., quinine hydro-bromate 2 grs., given three times a day, with easily digested, meat-free diet, has relieved still other cases.

X-ray and radium should always be tried before resorting to a surgical operation, for if recovery does result, the patient is spared the discomfort of ether, loss of time and the presence of an unsightly scar. We must admit that in goitres not amenable to other treatment, surgery holds out the only hope for recovery.

THE PARATHYROIDS.

Four in number, although they may be supernumerary, parathyroids are small, oval, disk-shaped, reddish-brown bodies about 6 mm. long and 4 mm. wide. They are situated between the posterior borders of the lateral lobe of the thyroid and its capsule. They are independent of the thyroid histologically and in function.

Bandler says that if we remove the parathyroids in a dog he dies of tetany. Many of the deaths from so-called shock in thyroid operations are now known to have been due to removal of the parathyroids. If more than two parathyroids are removed the result is always fatal tetany, which has been found to be due to a deficiency of calcium in the blood. Halsted discovered that transplanting parathyroids in the rectus fascia would relieve tetany when they had been inadvertently removed in thyroidectomy. MacLeod states that symptoms after parathyroidectomy are due to intoxication by guanidine, and that one of the functions of the parathyroids is to prevent the formation of this muscle-irritating substance in undue amount. So the chief function of the parathyroids has to do with calcium metabolism and guanidine.

Too frequent pregnancies may deplete the mother of her calcium and cause caries of the teeth, brittle nails and softening of the bones. Hypersecretion of these glands is not at present understood. They have been found enlarged in the insane. Hyposecretion causes muscle irritability and tetany.

Paralysis agitans was thought to be due to dysfunction of the parathyroids, but in post-mortem examination of these cases they have been found normal, although some cases of paralysis agitans have been benefited by extract of parathyroid gr. 1/10.

In certain forms of epilepsy there is parathyroid disturbance and saturating the patient with calcium will diminish the attacks.

Idiopathic tetany and spasmophilia in acute infections are probably due to parathyroid disturbance.

In cases of tuberculosis, varicose ulcer and other ulcers with low blood calcium extract of parathyroid is advised, but calcium is better.

THE PINEAL GLAND.

The pineal gland is a small, reddish-gray, cone-shaped body about 6 mm. long and 4 mm. wide. It is attached by a pedicle to the roof of the third ventricle of the brain just above the posterior commissure. In the adult, as the gland degenerates, it becomes filled with a gritty substance called brain sand. It was thought by the ancients to be the abiding place of the soul, and by morphologists later to be a sensory organ—the homologue of the third eye which some lower reptiles possess. However, its function is purely glandular.

The pineal has a secretion which exerts most of its influence in the first few years of life. It reaches its highest development at seven and then gradually lessens its activity up to puberty. The gland never entirely degenerates. It inhibits the mental and sexual development of the child.

Hypersecretion in the male child results in small genitalia, lack of hair on the face and pubes, and the voice does not change. In the female child, development of the breasts and pelvis is subnormal, pubic hair is absent and the menses do not appear. Hyposecretion results in a precocious child, with abnormal sexual development.

The symptoms of pineal tumor in a child are abnormal body growth, abnormal growth of hair, obesity, somnolence, premature sexual development, intellectual maturity, together with general tumor symptoms. Pineal tumor in adults causes only headache. X-ray sometimes aids in diagnosis.

Extract of pineal gland prepared from calves has been used in Mongolian idiocy and in mentally deficient children. Thus far the results have not been encouraging, and the use of the preparation is still in the experimental stage.

THE THYMUS.

This gland exerts its greatest activity up to the third year, when it gradually atrophies and becomes inactive, and disappears at about the end of the thirteenth year, although traces of it may be found in old age. It is situated partly in the chest and neck, extending from the fourth costal cartilage to the lower border of the thyroid, and rests below on the pericardium and large vessels, from which it is separated by a fascia. Consequently enlargement of the gland may cause pressure on the large vessels and nerves and result in thymic death. It contains a large amount of protonuclein and phosphorus and is concerned in the calcium and phosphorus metabolism of the body and furthers the production of bone.

Sarjous claims that the thymus has a great deal to do with the

normal development of sexual glands in the growing child, and that backwardness and idiocy are due to insufficient thymus. He found it absent in 50 per cent. of young idiots and mentally defective children. Thymus insufficiency is a cause of umarasmus in infants.

What we are most interested in as regards the thymus is the condition. When it is enlarged it is called status lymphaticus. This is not necessarily fatal, as growing children have a large amount of lymphoid tissue present.

Now the thymic child is well nourished contra to the tubercular one, a point to be borne in mind when making a physical examination as to whether chest dullness is due to enlarged thymus or mediastinal nodes. X-ray helps in clearing up the diagnosis. These children stand infection poorly and are not good surgical risks. Sudden heart failure may occur during anesthesia for removal of tonsils and adenoids or other surgical procedures. Whether thymic death is due to suffocation or pressure on the vagus or right auricle of the heart has not yet been determined.

Status lymphaticus is not entirely confined to children and may be seen in adults. The signs in a man are weakness, loss of muscle tone, enlarged tonsils, enlarged cervical and inguinal glands, small thorax, small genitalia, round, full hips and thighs, scant hair on body. In a woman, scant hair on pubis but may have hair on the face.

THE THYMUS IN RELATION TO INSANITY.

Prior states that in 46 post-mortems of mental cases, 25 had a definite thymus. Of these 46, 32 were epileptic and 22 of these epileptics had persistent thymus and 8 died suddenly. Sajous says that 53 per cent. of our insane are dementia præcox cases, and outside of focal infection the thymus plays an important part as a cause, and that poor functioning or too early decreased thymus function may be a cause of dementia præcox.

Severe asthma may be due to enlarged thymus, and any patient who has no nasal obstruction and does not react to pollen or protein tests should have an X-ray to determine if the thymus is enlarged. Surgical removal of enlarged thymus is a dangerous operation. X-ray treatment has been found highly satisfactory, improvement being noted in forty-eight hours.

Extract of thymus has helped in certain types of Graves' disease. The dose is uncertain 2-10 years. It is of no value in marasmus, and this condition can usually be corrected by proper feeding.

THE PITUITARY.

The pituitary is a reddish-gray, oval-shaped body about 12.5 mm. thick and 8 mm. long, with an average weight of $\frac{1}{2}$ gram. It is attached to the infundibulum at the base of the brain and rests in the sella turcica of the sphenoid bone. It consists of two lobes, an anterior, which is larger and oblong in form, and a posterior, smaller and round. Each lobe has a distinct secretion. The anterior lobe is essential to life and cannot be removed without causing death. Even if a portion of the anterior lobe is removed deposits of fat result with loss of hair, atrophy of ovaries or testicles with sometimes polyuria and glycosuria. The posterior lobe may be removed without harmful results.

The anterior lobe furnishes a secretion which has to do with basal metabolism, with the development of the genitalia, but more especially with the bony growth of the body. The posterior lobe has a secretion which raises blood pressure and causes contraction of smooth muscle fibre. It is diuretic. Large doses depress the circulation and cause shock.

Harvey Cushing has shown that the posterior lobe is concerned in sugar metabolism. If it hypersecretes glycosuria results. If it hyposecretes great tolerance to sugar is present. Operations or injuries to the head in this region result in polyuria, and tumor of the pituitary is a cause of diabetes insipidus.

Cushing states that the gland is enlarged in pregnancy, and many pregnancies may so enlarge the gland that temporary hemianopsia may result from pressure on the optic commissure. If the gland does not enlarge and hypersecrete during pregnancy, loss of teeth and hair, brittleness of the nails, and deposits of fat occur in the mother, with disordered calcium metabolism and poor bone development in the child.

Hypersecretion in a child results in abnormal bony growth. If this persists, he becomes a giant, and still further we get the condition called acromegaly. As acromegaly progresses the pituitary finally hyposecretes and we have low blood pressure, lowered mentality, coarse, flabby skin, impotence in the male, amenorrhœa in the female, finally asthenia cachexia and death. If acromegaly develops after age of 20, after the epiphyses of the bones have united, the bones do not elongate as in giantism, but bony deposits form in the tendons and along the spine, with resulting deformity. There is overgrowth of the bones of the hands, feet and face, with projection of the lower jaw and increased spacing of the teeth.

Hyposecretion in the young child causes infantilism. In older children juvenile obesity results. Hyposecretion in adults causes

dystrophy, adiposogentalis, the so-called Frölich's syndrome. There are deposits of fat on the body, scanty hair, small genitalia, impotence or amenorrhœa, lowered mentality, with polyuria and thirst. These patients finally die of asthenia, as in acromegaly, unless carried off by some acute infection. This condition is benefited by extract of the pituitary gland. Treatment of acromegaly by pituitary extract has not been satisfactory.

Cushing has achieved some brilliant results in beginning giantism and acromegaly by removing a portion of the anterior lobe.

Pituitary extract's greatest value is in obstetrics, to strengthen contractions of the uterus. It should rarely be used in primipara, and should never be used till the os is fully dilated and there is no obstruction, as tumor or contracted pelvis, to prevent the passage of the child, or rupture of the uterus may occur. Large doses may asphyxiate the child by obstructing the placental circulation. I observed one case where 1 c.c. caused tetanic convulsions in the mother, which lasted nearly an hour.

Pituitary extract is of value in cardiac failure and shock. It does not raise blood pressure as quickly as adrenalin, but its action is more prolonged. In postpartum hemorrhage it does not clamp down the uterus like ergot. In the after-treatment of laparotomies, when peristalsis is absent and tympanites present, 1 c.c. every twenty-four hours does good. In diabetes insipidus, due to pituitary disturbance, extract of posterior lobe hypodermatically acts as a specific cure as long as it is used.

While we do not know the cause of rickets, we do know that there is a deficiency in the deposit of lime salts in the bone, and it is rational to presume that rickets may be due to dysfunction of the pituitary's anterior lobe, and extract of anterior lobe may be used, together with fruit juices, cod liver oil and nutritious diet.

THE TESTICLES.

The male gonads furnish a hormone which is synergistic to the thyroid and antagonistic to the anterior lobe of the pituitary. Short-legged men have more sexual power than tall men, while short-legged girls mature earlier than tall ones.

The male gonads serve two distinct functions in the body. The seminal or procreative portion elaborates the spermatozoa. The interstitial portion supplies a secretion which has to do with the development of the genitalia, the control of fat metabolism, the enlargement of the larynx, the growth of hair on the body, the development of the secondary male characteristic, and it also acts as a stimulant to the brain.

If a boy is castrated before puberty the condition called eunuchism results. He grows tall and fat, with flabby musculature, has feminine traits and a soft voice. There is no growth of hair on the body, but an abundant growth on the head. The prostate does not develop, but the mammary may enlarge. He loses his pugnacity and is sluggish mentally. Hypersecretion results in sexual precocity in a child. In adults the various types of sexual perversion are frequently insanity and incorrigible criminality. Sexual perverts and incorrigible criminals should be segregated and castrated to prevent propagating their kind.

Hyposecretion in the young child causes infantilism. In older persons, feminism and impotency.

In old age the testicles atrophy and hyposecrete. Just what relation this hormone has to the imperfect nutrition of teeth and gray hair is not yet fully understood.

GLAND TRANSPLANTATION.

G. Frank Lydston was the pioneer of gland transplantation in this country and was said to have had an interstitial gland successfully transplanted into his own body from a young man dying a violent death. Lydston claimed that where the testicles were removed or diseased, gland transplanting was just as necessary for the welfare of the man as ovary transplanting in woman. He advocated engrafting in the scrotum or transplantation in the rectus fascia. Authorities state that in successful cases the gland remains active for a period varying from six to eighteen months.

Impotency may be psychic or due to ablation or hyposecretion of the testicles. Psychic impotency can be helped by electricity and suggestion. Feeding testicular extracts has not been successful in treatment of impotency due to hyposecretion and gland transplanting has been suggested.

Testicular extracts are rich in protonuclein and lower blood pressure and have been recommended in premature old age to prevent high blood pressure and arterio-sclerosis. Whether or not they are of value in this condition is still open to discussion.

THE OVARIES.

The ovaries supply a hormone which causes development of the bony pelvis, deposits of fat about the hips, development of the mammae and feminine traits.

In castration of a girl she takes on masculine characteristics, heavy voice, growth of hair on the face, taller growth, sluggish mentality and the mammae do not develop. Removal of ovaries in women during

menstrual life causes her to add weight rapidly on account of loss of the menstrual flow and ovarian secretion. Nervous symptoms, as hysteria or melancholia, may accompany this condition.

Hypersecretion in young girls may cause profuse menstruation and abnormal mental states, which vary from flirtatiousness to nymphomania. Osteomalacia is thought to be due to hyperovarian secretion, as it is rarely seen after the menopause.

Hyposecretion causes masculine traits in the female.

Treatment of hypersecretion is removal of one ovary or an ovary and a half.

Osteomalacia is helped by X-rays applied over the ovary to diminish its function.

Administration of ovarian extract is beneficial in cases where both ovaries have been removed, as it relieves the headache and nervous depression. Extract of thyroid should be given with it. Ovarian extract is also of value in young girls who have headaches, with dysmenorrhœa and digestive disturbances, due to ovarian dysfunction.

Ovarian transplantation is advised in selected cases where the ovaries are removed before the menopause, to prevent the nervous symptoms which usually follow.

THE CORPUS LUTEUM.

The corpus luteum is a gland within a gland, that is, it is a part of the ovary, although entirely distinct in function. The corpus luteum does not appear until puberty, just prior to menstruation, when the ovule graffian follicle ripens, ruptures and the corpus luteum is the result. Up to puberty, the interstitial portion of the ovary furnishes all the internal secretion the female child receives.

The hormone of the corpus luteum is thought to sensitize the uterus, and prepare it for pregnancy and the development of the placenta. It is also believed to control menstruation and promote sexual impulse and desire.

This gland grows for about two to two and one-half weeks after ovulation and then degenerates if pregnancy does not occur. If pregnancy does take place, the corpus luteum continues active for about two and one-half months and then degenerates. The cause of the degeneration at this time is not known.

Hypersecretion and abnormal persistence of the corpus luteum seem to interfere with menstruation and may be one of the causes of sterility.

Nausea of pregnancy usually stops at the beginning of the third month. As the corpus luteum has disappeared at this time, it has been suggested that it is the cause of the nausea. Hirst opposes this view

and claims the nausea is due to lack of corpus luteum and advocates feeding of the extract in these cases.

Cancer of the breast is prone to occur at the menopause, when the corpora lutea have ceased to function and the ovarian secretion is diminished. Just what relation, if any, these secretions have in this condition remains to be determined.

Extract of corpus luteum has been used in delayed menstruation, amenorrhœa and dysmenorrhœa of young women. The gland lowers blood pressure and has been beneficial in high blood pressure of the menopause. Its administration should be watched carefully, as nausea, vomiting and severe depression follow long continued or large doses.

THE MAMMARY GLANDS.

We have no established facts to justify the theory that the mammæ have an internal secretion, yet they are believed to secrete a hormone which has an inhibitive action on the uterus and ovaries, because the infant suckling at the breast causes uterine contractions and hastens involution of the uterus. And involution is more rapid in cases where women nurse their babies than when they do not.

Menstruation and probably ovulation are usually absent during lactation. If menstruation does occur, the child does not grow as well. Both ovaries may be removed without interfering with lactation.

Extract of mammæ will check bleeding from the uterus which is functional as hemorrhage of the menopause or menorrhagia of young girls.

THE PANCREAS.

We speak of the pancreas, in passing, on account of the islands of Langerhans secreting a substance and throwing it into the blood stream which has to do with the conversion of starches and sugars. This substance has been elaborated and is now supplied the profession in the form of insulin—a temporary relief, but unfortunately not a specific cure for diabetes mellitus.

THE SPLEEN.

The spleen has an internal secretion which disintegrates the red blood corpuscles and sets free hemoglobin, which the liver changes to bilirubin. It also produces leucocytes and lymphocytes, and in certain conditions of the bone marrow may produce red blood corpuscles. The full scope of the spleen function has not been determined.

It becomes swollen and enlarged in certain infectious diseases and the typhoid spleen is probably an attempt by nature to bring about a greater purification of the blood and manufacture more phagocytes.

We have no gland therapy for dysfunction of this organ at present, the treatment being surgical. Splenectomy should always be considered in hemolytic jaundice, pernicious anemia and splenomedullary leukemia.

An extract has been prepared from the spleen which has peristaltic activity, but has to be given hypodermatically. Untoward results have sometimes followed and its use is not recommended.

THE PLACENTA.

It is a well-known fact that females of certain savage tribes, cows and hogs eat their placenta. The reason for this has been found to be, that a certain substance in the placenta increases flow of milk in the parturient. Going on this assumption, extract of placenta has been prepared to be given parturient women with scanty flow of milk. I have used it in two cases the past year, with doubtful results. It is also said to be of value in menorrhagia.

THE PROSTATE.

The prostate is thought by some to have an internal secretion. Man has a change of life similar in some respects to woman, although it occurs ten to fifteen years later. About 35 per cent. of all men over 60 have an enlarged prostate, but they do not necessarily have symptoms.

The prostate grows by stimulation from the hormone of the interstitial cells of the testicle, consequently if these cells are overactive the prostate must enlarge. Pelvic irritation or bladder infection also cause it to enlarge. When it is enlarged, it is thought to furnish an increased secretion which is depressing mentally, and melancholia, with suicidal tendency, certain forms of dementia and sexual perversion occurring in men over 60 are held to be due to disorder of the prostate's hormone.

Extract of prostate gland have been used and abandoned on account of resulting mental depression.

THE KIDNEYS.

We may have complete suppression of urine, lasting for four or five days, without uremia resulting, if the kidneys are healthy, but if the kidneys are damaged uremia surely follows a suppression of urine and is quite likely to occur if the urinary output is diminished. Consequently it is held by some that the kidneys may have an internal secretion which neutralizes toxins. We do not know the cause of uremia or eclampsia, whether due to acidosis or cerebral irritation from alkalosis. We do know that both are dangerous toxemias and probably are closely related. I believe the time is coming when the exciting cause of both

nephritis and diabetes will be found to be due to an acute infection, and that lack of exercise and high protein and carbohydrate diet are only predisposing factors.

Feeding of fresh raw kidneys or watery extracts from fresh kidneys to nephritics may for a time stave off uremia.

Extract of kidney is claimed to relieve nephritis and increase the nitrogen output. I have used the so-called nephritim tablets in a number of cases with no benefit whatever to the patient.

THE PAROTIDS.

During mumps, orchitis frequently develops, showing that the parotids and testicles are intimately associated. Whether this is a sympathetic nervous phenomenon or whether the parotids have an internal secretion is not at present definitely known.

When the parotid is involved in acute infections, as erysipelas or typhoid, it manufactures a highly potent toxin causing high fever, with slow pulse and liability to sudden cardiac failure. And we should guard our prognosis in these cases.

Extract of parotid gland has been used in dysmenorrhœa and metrorrhagia, but has been of doubtful value.

GLANDS OF THE SMALL INTESTINE.

The glands of the duodeuneum and jejunum furnish an internal secretion called secretin, which stimulates the liver and pancreas, and increases peristalsis, and has been recommended for constipation. It is of no value given by mouth, but must be used hypodermatically or intravenously. Its usefulness is questionable.

THE SUPRARENAL GLANDS.

The suprarenal glands are two small, yellowish-colored bodies situated at the upper end of each kidney. They are usually 3 to 5 cm. in length, less in width and 4 to 6 mm. in thickness. The size varies in different individuals. Accessory suprarenals are occasionally seen along the spermatic cord in the male and broad ligament in the female.

Each gland consists of two portions, a cortical and a medullary. The hormone of the cortical portion aids in the development of the sex organs, as the cortex is highly developed in sexual precocity and poorly developed in sexual deficiency. The secretion of the medullary portions furnishes a pressor substance, controls normal vascular tone, enables the individual to withstand pain, shock, blood letting and toxemias.

Injectons of small doses of adrenalin raises blood pressure by con-

stricting the arterioles and slows the pulse by stimulating the vagus. Large doses disturb the glycogenic function of the liver and cause glycosuria. They also dilate the blood vessels and may cause death.

The suprarenals combat toxemias and are overworked in any prolonged infection, and deficient adrenal secretion frequently accounts for collapse and shock seen in these cases. Consequently we should not use aspirin and coal tar derivatives in acute infections, as pneumonia and influenza, as they increase the depression of the suprarenals, which are already overworked.

Soldiers who suffer from shock and persons who faint easily or take on infections readily are thought to have insufficient adrenals. Crile states that sorrow and melancholia inhibit while joy stimulates the adrenals.

Hypersecretion in a boy causes early puberty, with growth of hair on face and pubis. In a girl it causes early menses, with growth of pubic hair, even at the age of five; if hypersecretion continues she may become of a masculine type.

Hyposecretion in an adult results in lack of muscle tone, anorexia, indigestion, low blood pressure, increased susceptibility to infection, and slow recovery from disease, weak heart action and neurasthenia. There also may be brown spots on the skin not due to liver disturbance and mental depression. In Addison's disease these symptoms are exaggerated, with nausea, vomiting, diarrhea, bronzing of the skin, finally exhaustion and death.

Disturbed adrenal secretion may result in peculiar mental traits. Hypersecretion causes the individual to be temperamental and aggressive. In hyposecretion the individual may be cranky or queer, and discontented with life in general.

Anaphylactic shock is thought to be due to hyposecretion. Just what relation the suprarenals have to hypertension is not at present determined.

Adrenalin is used in varying strengths in asthma, hay fever, iritis, and conjunctivitis. In nose and throat surgery it increases the anesthesia of cocaine, and lessens bleeding by blanching the mucosa. It is of great value in shock conditions, whether from injuries, surgical operation, acute illness, or severe burns, given hypodermatically, as often as is necessary, to maintain adequate blood pressure. During the past year adrenalin has been successfully used in saving life in the newborn, when death seemed apparent, by injection directly into the heart muscle.

THE CHILDREN'S HOSPITAL, PORTLAND, ME.

MEDICAL SOCIAL SERVICE REPORT

FOR

SIX MONTHS, BEGINNING OCTOBER, 1923.

In October, 1922, medical social service was begun at the Children's Hospital on a part-time, volunteer basis. During the following year the work was interrupted several times for a period of weeks. Beginning October, 1923, the work was more firmly established, payment being awarded for part-time service. The work has been confined, for the most part, to patients living in Portland and vicinity.

Medical social service assists in the cure and prevention of disease by such activities as:

1. Assuring advised hospital care.
2. Securing necessary after-care for patients discharged from the hospital.
3. Procuring institutional care.
4. Arranging for examination of persons exposed to contagious diseases.
5. Aiding in diagnosis by investigating past medical social history.
6. Adapting working or school conditions to patient's physical limitations.
7. Securing and supervising the wearing of apparatus.
8. Arranging for special diet.
9. Securing care for neglected children.
10. Arranging for material relief.

The following is a statement of services affecting 101 patients dealt with during the six months, beginning October, 1923: The time expended averaged about five hours per day: one and one-half hours' study of records and making reports; one and one-half hours' contacts in clinic; two hours home and agency contacts. (About fifty other patients were considered, but, as nothing definite was accomplished, they are not included in this report.)

EXAMINATIONS.

Number of Examinations arranged for this hospital,	71
Number of Examinations arranged for other hospitals,	44
Number of Examinations arranged for privately,	12
Total,	<hr/> 127

TREATMENTS.

Number of treatments arranged for this hospital,	72
Number of treatments arranged for other hospitals,	38
Number of treatments arranged for privately,	16
Total,	126

Nineteen of the treatments arranged for at this hospital have been operative: 7 orthopedic, 12 tonsil and adenoid operations.

In estimating the number of treatments only the initial treatment, or the treatment requiring some special effort on the part of the worker, has been reckoned. The same rule has been applied in making the examination estimates.

Friendly contact with the child in the clinic is a strong factor in gaining his co-operation. About nine patients have been coming in for treatment daily after the initial school and home arrangements have been made. Others have been more intermittent in attendance, and have required more frequent effort. One patient, being treated privately and without charge by Dr. William Anderson, has received seven or eight treatments requiring two adjustments. In this case credit for two private treatments has been reckoned.

The following table shows the number and distribution of individual treatments for which social service is responsible, compared with the Children's Hospital totals for six months, beginning October, 1923. The figures in *italic* are hospital totals for six months, beginning October, 1922:

	Exam.	Mass.	Dress.	Baking.	X-ray.	Plaster.	Gym.	Treatm't
Hospital totals,	<i>458</i>	<i>1503</i>	<i>130</i>	<i>691</i>	<i>257</i>	<i>315</i>	<i>1731</i>	<i>5085</i>
	607	1709	197	854	201	232	980	4780
Social Service								
responsible for	71	590	2	71	3	18	289	1044

The greatest difference between totals comes under the heading "Gym." There were 751 more gymnasium treatments given in 1922 than in 1923. This may be accounted for by the fact that in 1922-23, before the Dispensary was opened, many children with so-called minor ailments, such as "subnormal musculature," were advised to take exercises, but in 1923-24 this class of patients was sent to the Dispensary, where there are facilities for a more thorough physical examination and medical treatment.

The work was facilitated during the fall months by the Junior League Auto Corps. Seventeen children benefited through their activity. Twenty-one were furnished transportation by the social worker, a total of thirty-eight children being accommodated.

A very good indication of the value of the work is shown by the number of different agencies that have sought the co-operation of the social service worker. The local agencies that have used this service number twelve, and the out-of-town agencies number six, total eighteen.

OTHER ACTIVITIES.

Letters of general welfare information written,	42
Institutional care procured,	1 child.
Convalescent care secured,	3 children.
Care secured for neglected children,	6 children.
Medicine or apparatus purchased,	4 children.
Special diet arranged,	7 children.
Material relief arranged,	32 people.
Employment secured,	4 people.
Girl Reserve Corps Recruits,	7 girls.

Dental cards were issued and public health pamphlets distributed.

Seventeen children were recommended for Fresh Air School, but for various reasons, such as lack of room in the department, mental deficiency on the part of the child, etc., only one child was admitted.

A year ago the Altura Club, South Portland, donated \$25.00 for a comfort fund. A few months ago I went before the Club, gave a brief account of the manner in which the money had been expended, and was rewarded by the gift of \$25.00 more.

Respectfully submitted,

ISABEL H. DYER,
Medical Social Service.

Notice.

THE CUMBERLAND COUNTY MEDICAL ASSOCIATION.

The Cumberland County Medical Association will meet at the Congress Square Hotel, Thursday, October 30, 1924. Dinner at 6.30, followed by meeting in the sun parlor.

Speaker of the evening, Dr. Henry A. Christian, physician-in-chief at Peter Bent Brigham Hospital. Subject, "Some Phases of the Nephritic Problem."

All members of the Maine Medical Association are invited to attend.

Book Review.

Practical Dietetics: With Reference to Diet in Health and Disease.

By ALIDA FRANCES PATTEE. A. F. Pattee, Publisher, Mt. Vernon, N. Y.
Price, \$2.50.

We have received this very excellent book, with its most gratifying index of hundred of recipes for diet for the well and the sick, and are grateful for its introduction into our acquaintance. All of us, as physicians, know that half of the battle against disease is good food, but few of us know, as we should, the varieties of food which are so useful for the many varieties of diseases with which the human frame is affected. Part I treats of the principles of nutrition, Part II, of the practical application of the principles already announced, and Part III goes fully into the feeding of the sick, hospital diets, diets in disease, and diet under special conditions.

From the various chapter, physicians and nurses alike, and even families and housekeepers, will find valuable information. In addition to the index on the recipes there is a general index to cover everything else in the book of some six hundred pages. Open the book anywhere and the reader will find food for thought, of his own, as well as recipes for foods for his patients. In a word, repeated examination of the well printed, well bound, well shaped and neatly appearing book, show every reason to commend it from beginning to end. It is a book of value to the physician and well worthy of his study, thought and consideration, for medical practice consists even more in diet than in medicines for every sort and condition of disease.

Some two or three hundred thousand copies of this meritorious and praiseworthy book have already been sold, and we commend it to another hundred thousand of ought-to-be-owners, as a most excellent treatise on the subject to which it is devoted.—J. A. S.

NEW AND NON-OFFICIAL REMEDIES.

The following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies:

Abbott Laboratories:

Metaphen.

Metaphen Solution, 1:5,000.

Swan-Myers Company:

Sterile Ampules of Mercury Benzoate, 2 per cent.

Sterile Ampules of Mercury Biniodide (Oil Solution).

Sterile Ampules of Mercury Salicylate, 0.097 Gm. (1½ Gr.).

Sterile Ampules of Mercury Salicylate, 0.065 Gm. (1 Gr.).

Sterile Ampules of Mercury Succinimide, 0.01 Gm. (¼ Gr.).

Officers and Members of the Maine Medical Association, 1924.

OFFICERS

President—F. W. Mann, Houlton. 1st Vice-Pres.—N. M. Marshall, Portland.
 Pres.-Elect—J. D. Phillips, S. W. Harbor. 2nd Vice-Pres.—Carl Stevens, Belfast.
 Sec. and Treas.—B. L. Bryant, Bangor.

BOARD OF COUNCILORS

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Second District,	John Sturgis, Auburn,	" " "
Third District,	Neil A. Fogg, Rockland,	" " 1926.
Fourth District,	Geo. Young, Skowhegan,	" " "
Fifth District,	W. J. Gilbert, Calais,	" " 1925.
Sixth District,	James MacFadyen, Milo,	" " "

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Cumberland,	F. N. Whittier, Brunswick,	E. E. Holt, Jr., Portland.
Franklin,	A. M. Ross, Farmington,	G. L. Pratt, Farmington.
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Knox,	Frans Leyonberg, No. Haven,	J. G. Hutchins, Camden.
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Waldo,	E. S. Stevens, Belfast,	R. W. Clark, Searsport.
Washington,	I. E. Dyas, Eastport,	A. L. Smith, Machias.
York,	D. E. Dolloff, Biddeford,	R. C. Hannigen, Saco.

ANDROSCOGGIN.

Andrews, S. L., Lewiston	Cunningham, C. H., Auburn
Barrell, D. A., Auburn	Cushman, B. G. W., Auburn
Beckler, W. B., Auburn	Desaulniers, G. E., Lewiston
Bolster, W. W., Lewiston	Dumont, L. J., Lewiston
Buker, E. B., Auburn	Dupras, J. E., Lewiston
Call, E. V., Lewiston	Emmons, G. P., Lewiston
Chaffers, W. H., Lewiston	Fahey, W. J., Lewiston
Chenery, F. L., Jr., Monmouth	Fitzmaurice, T. J., Lewiston
Cobb, A. A., Auburn	Garcelon, H. W., Lewiston

ANDROSCOGGIN—Continued.

Garcelon, W. S., Lewiston	Peaslee, C. C., Auburn
Gauvreau, H. L., Lewiston	Pelletier, J. J., Lewiston
Gerrish, L. P., Lisbon Falls	Pierce, E. F., Lewiston
Giguere, E. N., Lewiston	Plummer, A. W., Lisbon Falls
Gilbert, I. W., Litchfield	Poulin, J. E., Lewiston
Girouard, J. A., Lewiston	Pratt, H. S., Livermore Falls
Goodrich, E. P., Lewiston	Rand, G. H., Livermore Falls
Goodwin, R. A., Auburn	Randall, R. N., Lewiston
Grant, A., Jr., Lewiston	Renwick, W. J., Auburn
Hall, L. F., Auburn	Roy, L. O., Lewiston
Hanscom, O. E., Green	Russell, B. W., Lewiston
Haskell, W. L., Lewiston	Russell, D. F., Leeds
Hayden, L. B., Plymouth, Mass.	Sawyer, S. E., Lewiston
Higgins, E. C., Lewiston	Small, R. M., Auburn
Irish, H. L., Turner	Scannell, J. W., Lewiston
Ladouceur, W. J., Lewiston	Smith, R. I., Auburn
Langelier, E. H., Lewiston	Sprague, O. A., Turner
Leathers, E., Auburn	Spruce, H., Lewiston
LeBel, F., Lewiston	Sturgis, J., Auburn
Marston, E. J., Auburn	Twaddle, G. W., Auburn
Miller, H. R., Lewiston	Wakefield, F. S., Lewiston
Morin, R. J., Lewiston	Webber, W. E., Lewiston
Norton, C. E., Lewiston	Williams, C. E., Auburn
O'Connell, G. B., Lewiston	Wiseman, R. J., Lewiston

AROOSTOOK.

Banton, L. G., Island Falls	Huggard, L. H., Limestone
Bates, E. C., Houlton	Jackson, F. H., Houlton
Bennett, F. E., Presque Isle	Kallock, H. F., Fort Fairfield
Boone, S. W., Presque Isle	Kilburn, F., Presque Isle
Boone, Stover W., Presque Isle	Kinney, B. O., Mars Hill
Brown, M. J., Mars Hill	Larrabee, F. F., Washburn
Bundy, H. C., Mars Hill	MacDougal, W. A., Westfield
Carter, L. F., Presque Isle	Mann, F. W., Houlton
Chamberlain, W. G., Fort Fairfield	Mitchell, F. W., Houlton
Damon, A. H., Limestone	Page, R. J., Fort Kent
Dickison, T. S., Houlton	Potter, J. G., Houlton
Doble, E. H., Presque Isle	Sawyer, A. L., Fort Fairfield
Dobson, H. L., Presque Isle	Sincock, W. E., Caribou
Donovan, J. A., Houlton	Small, H. E., Fort Fairfield
Ebbett, P. L. B., Houlton	Tarbell, F. W., Smyrna Mills
Fulton, A. J., Blaine	Therriault, L. S., Van Buren
Gibson, W. B., Houlton	Thomas, C. F., Jr., Caribou
Graves, R. A., Presque Isle	Upham, G. C., Caribou
Gregory, F. L., Caribou	Upton, G. W., Sherman
Hagerthy, A. B., Ashland	Ward, P. M., Houlton
Hammond, H. H., Van Buren	White, W. W., Houlton
Harmon, C. H., Caribou	Williams, C. E., Houlton
Hill, F. O., Monticello	

CUMBERLAND.

Abbott, E. G., Portland	Baker, C. A., Portland
Adams, Eva A., Brunswick	Bates, G. F., Yarmouth
Allen, J. H., Portland	Beach, S. J., Portland
Alward, M., Portland	Bennett, J. L., Bridgton
Anderson, W. D., Portland	Bickmore, H. V., Portland
Andrews, E. H., Brunswick	Black, R. P., Peaks Island
Austin, L. K., Portland	Blaisdell, E. R., Portland

CUMBERLAND—Continued.

Blake, J. P., Harrison
 Bowers, J. W., Portland
 Bradford, W. H., Portland
 Brock, H. H., Portland
 Brown, F. I., South Portland
 Brown, L. A., Portland
 Burrage, T. J., Portland
 Carmichael, F. E., Portland
 Caswell, C. O., Portland
 Clark, A. U. F., Portland
 Clark, R. H., Portland
 Cleveland, H. H., Portland
 Clough, D. J., Portland
 Connellan, J. W., Portland
 Cousins, W. L., Portland
 Couturier, A., Westbrook
 Cragin, C. L., Portland
 Cummings, E. S., Portland
 Cummings, G. O., Portland
 Cumston, C. H., Brunswick
 Davis, G., Portland
 Davis, H. E., Portland
 Davis, J. L., Portland
 Davis, P. W., Portland
 Derry, L. A., Portland
 Devereaux, F. G., Portland
 Dooley, F. M., Portland
 Drake, E. H., Portland
 Driscoll, D., Portland
 Drummond, J. B., Portland
 Dunn, B. F., Portland
 Dyer, H. L., East Parsonfield
 Dyson, W. W., Portland
 Elliott, G. M., Brunswick
 Elwell, W. E., Portland
 Emery, H. S., Portland
 Everett, H. J., Portland
 Ferguson, F. A., Portland
 Ferren, F. L., Westbrook
 Fickett, J. P., Naples
 Files, E. W., Portland
 Fisher, S. E., Portland
 Fogg, C. E., Portland
 Folsom, E. B., Portland
 Foss, C. W. P., Brunswick
 Foster, B. B., Portland
 Foster, C. W., Portland
 Foster, T. A., Portland
 Freeman, W. E., Standish
 Geer, G. I., Portland
 Gehring, E. W., Portland
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We print this as a record for longevity of practice, for the study of those interested in oddities of medical practice, and ask for a longer continuous practice of father and son from our contemporary state medical Journals, if such can be found. If not, then the record belongs to Maine.—J. A. S.

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* CLINICAL OBSERVATIONS OF THE BORDER-LINE BETWEEN DENTISTRY AND OTO-LARYNGOLOGY.

By FREDERICK T. HILL, M. D.

The border line between the fields of Otolaryngology and dentistry is frequently a hazy one and not easily determined. The two fields of work are so closely allied that it is often difficult to sharply define the limitations of either. The problem of one frequently demands the best available skill of the other for solution. The pathology encountered in the patient often calls for collaboration for both dentist and otolaryngologist. Nowhere in the whole realm of medicine is there greater demand for co-operation of thought and effort than between these two. In these days of specialism, of more or less intensive study of rather restricted fields, it behooves all of us so engaged not to hesitate to invoke the help of those skilled in the allied branches, in order to arrive at the final result, which will prove of greatest advantage to the patient.

It is not within the scope of this paper to give any complete and comprehensive review of the problems affecting the dentist and the otolaryngologist. I shall only endeavor to mention a few, which are brought to mind through my own experience in clinical practice; to point out a few incidents in which the dentist and the otolaryngologist can co-operate to their mutual advantage and the well-being of the patient. I shall not attempt to go into the very obvious and highly specialized field of the cleft palate and harelip. Time or space will not suffice for these

* Read before the Kennebec Dental Society, April 28, 1924.

congenital problems. Rather, I shall confine myself to the every-day problems encountered by the dentist and otolaryngologist in which they can derive considerable help and assistance from co-operation with the other.

Naturally the first type of case which comes to the mind of the otolaryngologist is the otalgia of dental origin. Frequently we see cases of pain in the ear where there is no local pathology to account for it. The ear is normal in appearance and function, and the pain is referred from the throat or mouth. This is generally caused by some trouble with the molar teeth, most frequently the third lower. It may be caries, pulp stones or even an impaction. Reference of the case to the dentist solves the problem.

Of more interest to the dentist are the cases in which there is otological pathology as well as symptoms, resulting from dental conditions. These may occur as toxemias from focal infection or as inflammatory reaction about the orifices of the Eustachian tubes. Just as an apical abscess may be the focus of infection elsewhere in the body, so may it affect the ear. It may cause an arthritic disturbance of the ossicular chain which conducts the sound waves, and so cause a conduction deafness. These little joints are quite susceptible to infection, and the end-result may be an adhesive process seriously retarding the function. The nerve ending in the organs of Corti may become damaged, as a result of focal infection from an apical abscess, causing a loss or diminution of hearing for the high tones. Pyorrhoea may likewise be the causative factor, either as a focus of infection, or by causing an inflammatory reaction, with congestion of the Eustachian tubes, resulting in a catarrhal form of deafness.

In all these so-called catarrhal types of deafness, the first problem of the otologist is to find the cause and eliminate it. The possibility of its being of dental origin should never be lost sight of, and all the diagnostic and therapeutic ability of the dentist should be utilized. The co-operation of the dentist will be of greatest benefit, and, in many cases, solve the problem. Manifestly, this should be accomplished early in the course of the disease, for it is usually a case of preservation and prevention rather than cure. The cause should be eliminated before much damage has been done.

I have been interested to observe, occasionally, another condition, one which, to my knowledge, has not hitherto received much attention. I refer to cases of salpingitis, or inflammation of the Eustachian tubes, apparently due to some dental retention apparatus applied to the teeth. I have seen this in several cases undergoing orthodontial treat-

ment, where the apparatus has acted as an irritating factor, causing tubal congestion. This has been manifested by a varying degree of deafness, feeling of fullness in the ears and tinnitus. These cases should be carefully watched, in order that this condition may not become chronic and result in a conduction deafness. This inflammatory reaction may be overcome, or counteracted, by appropriate measures, with resulting conservation of hearing. Let me urge that the dentist handling cases of orthodontia inquire of his patients as to the occurrence of these symptoms, and, if present, see to it that proper otological observance and treatment is instituted.

In the field of rhinology, the frequency with which we encounter deviations of the nasal septum points to the need of early corrective work on the teeth and palatal arch. Fully 88% of the Caucasian race are said to have deflections of the septum. These generally become manifest about the age of adolescence, and very frequently, to my mind, are due to faulty dental and palatal development. The high, narrow or Gothic palatal arch is frequently seen in the worst cases of septal deviation. Here is where orthodontia can play a large role in the field of prevention. By it, the child may be assured of future correct breathing and the nasal normality which is so vital a factor in the general health of the individual. And oftentimes the dentist, in turn, may well attribute the cause of the faulty arch to the presence of adenoids in the nasopharyngeal vault. So the dentist and the otolaryngologist must go hand-in-glove through this little drama of the developing child. The elimination of adenoids and tonsils, if diseased, will do much to insure the correct palatal development, which, in turn, will oftentimes preserve the proper nasal contours. Working together, these two may do much towards the future health and happiness of the child. The responsibility upon them is great. They should faithfully endeavor to carry on such corrective measures as are indicated, and the results will amply repay their efforts.

Of the accessory nasal sinuses, the maxillary antrum, because of its location, is the one in which the otolaryngologist and the dentist have a community of interest. Actually a portion of the nasal chamber, and with the roots of the bicuspid and first molar teeth coming into intimate relation with it—often even penetrating into it—the antrum is truly on the border line between dentistry and otolaryngology.

The purely rhinological phases of antral disease I shall not touch upon. The dental phases practically always follow abscessed teeth in the floor of the antrum, or are the sequelæ of dental surgery. An apical abscess on a tooth penetrating into the antrum may easily infect the sinus. The antral floor may become necrotic. A tooth, or sequestrum,

may become necrosed into the cavity of the antrum and act as a foreign body. Following the extraction of the diseased tooth, the process may be extended into the antrum by rather misdirected surgical efforts. We may have a cyst on the apex of a tooth filling the whole sinus.

The antrum is a peculiar bony cavity, in that it normally drains uphill. Its ostium opening into the hiatus semilunaris in the middle meatus of the nose is of little use as an outlet for fluid material, though perfectly satisfactory as a ventilating opening. The lower portion of the sinus is considerably below level of the floor of the nose. Hence infection of the antrum with the presence of either serum or pus, from whatever cause, presents an immediate problem to secure drainage. The rather usual procedure, elsewhere, of drainage from the lowest part, in a case of the antrum, becomes ill advised. The tendency to fistula formation, with a permanent connection between the antrum and the mouth, must not be lost sight of. The old antrum operation, by means of an approach through the alveolar process and subsequent drainage, is luckily little seen in these days, but it was, and is, responsible for many unhappy people, who are more or less chronic invalids. The constant flow of nasal mucus into the mouth, increased and kept up by the natural tendency of the patient to unconsciously suck down on this opening, is a factor predisposing to a neurotic temperament, to put it mildly. The old cases, wearing a plug or obturator, are even worse. And it is some surgical problem to close up these old fistulous tracts. I have accomplished this in several cases by means of a Caldwell-Luc operation on the antrum, followed by a plastic, with mattress sutures on the alveolar opening. I have one old Phillibrown case, however, still wearing an obturator, and, from all appearances, she will continue to do so until she shakes off this mortal coil.

I wish to deplore the draining of an infected antrum through the alveolar process, even though it be the most dependent portion where gravity will have its greatest effect. Normally the antrum opens into the nose, of which it is a part, and, if drainage is desired, it should be secured into the nose and not the mouth. I realize that many times the antrum is opened and irrigated through the dental socket and that many times these cases heal satisfactorily. Often this method will suffice where the lining mucosa is not seriously infected, but I firmly believe that this course is not only ill advised, but is, in fact, dangerous, where there is any infection in the sinus *per se*. The chances of extension of infection, together with the establishment of fistulous tract, are too great to be neglected. Drainage in these cases should be established through the nose, generally by an opening in the inferior meatus underneath the inferior turbinate. Here the otolaryngologist should function.

In cases of simple apical abscesses in teeth, involving the antrum, I believe that extreme care should be exercised in curetting the socket, after extraction, not to penetrate the mucosa lining of the antrum. When this has already taken place and the sinus has become infected, appropriate nasal measures looking to drainage and ventilation should be early instituted. The otolaryngologist should be called upon, and, working in conjunction with the dentist, these cases may be brought to a speedy recovery with a minimum of effort.

Where the antral floor has become necrotic, where a tooth or sequestrum is acting as a foreign body, in the presence of a dentaginous cyst, or where, through long-standing infection, the lining of the sinus has become badly diseased and undergone degenerative changes, then a more radical procedure, such as the Caldwell-Luc operation, is indicated. But here, after thoroughly removing the diseased bone or mucosa, or both, we carefully suture the approach through the canine fossa and institute our drainage and ventilation through the inferior meatus of the nose.

Caution on the part of the dentist not to extend his procedures too far, and readiness to call on rhinological assistance, will save him many worries and the patient much discomfort and suffering.

In the mouth and pharynx, we again come to a border region where the dental and otolaryngological factions more or less intermingle. The various infections of the buccal mucosa and the gums come equally to the attention of the dentist and the otolaryngologist. Gingivitis, stomatitis, cancrum oris or noma, as well as the parasitic infections, such as thrush, with its flaky deposits and dry mouth, call almost equally for dental and medical treatment. Proper dental therapy, together with appropriate medical treatment, general quite as much as local, are necessary to effect relief. Tartar deposits, pyorrhoea, abscessed and carious teeth usually play a big part in these mouth infections. Malposed, unerupted or supernumerary teeth may prove to be vital factors.

In cases of infection of the salivary glands—the parotid, submaxillary and sublinguals—the possibilities of the dental factor must never be lost sight of. Again an abscessed or carious tooth may be the underlying cause. Cheek bite, due to malposed or pathologically occluding teeth, may give rise to disturbances of Steno's duct, which may simulate a parotitis.

Diffuse suppuration of the floor of the mouth, known as Ludwig's angina, may be a most serious condition, extending down the neck and requiring quite heroic measures, not only to relieve, but to prevent an untoward end-result. While usually not of dental origin, these cases frequently are first seen by the dentist, who should recognize the sever-

ity of the condition and refer them as early as possible to the physician. The brawny induration in the neck just below the chin, the characteristic position of the head, held somewhat backward, due to the swelling and its pressure upon the respiratory channel, and the swelling and edema of the tissues in the floor of the mouth underneath the tongue, should make the diagnosis easy. Frequently the patient is unable to close the mouth, and the swelling may cause the tongue to protrude. These cases require the most careful handling. The larynx must be observed for edema. Tracheotomy may be required. External incision and drainage, early in the course of the disease, is advisable.

Vincent's angina comes under the care of both the dentist and the otolaryngologist. The ulcerations caused by the Vincent spirillum and fusiform bacillus are probably most commonly seen upon the tonsils, but they are also encountered on the soft palate, buccal mucosa and the gums. The character of the ulcerations usually makes the diagnosis fairly easy, though we must exclude syphilis and sometimes diphtheria. The very sharp edges, often angulated, with the deep excavations and the slough or membrane is quite diagnostic, while the bacteriological examination proves the case. There are innumerable methods of treatment, but I have had the best success with applications of a freshly-made 40% solution of silver nitrate after the slough or membrane has been gently removed by a cotton-stick or curette. This should be done daily. I have used other strengths of solutions, from 10% to the actual bead, successfully, but think that the 40% works the best in the majority of cases. I have had no luck with the local application of Salvarsan. The surface of the ulceration should be dried as well as possible before the solution is applied. The teeth should be cleaned and all dental pathology remedied, and the tonsils, if the site of the infection, should be removed after the process has quieted down, in order to effect a final cure.

The oral manifestations of syphilis come to the attention of the dentist and the otolaryngologist, frequently all unsuspecting. Often-times it is given to these practitioners to make the first diagnosis of a luetic condition. The patient may complain of some sore or patch in the mouth or throat, or may be seeking help for some other condition entirely, and examination may disclose evidences of syphilis. An accurate diagnosis, confirmed by serum test or other laboratory reactions, may prove of untold value, both to the patient and his family, and to the community. A great responsibility rests upon the medical man in such a situation. The primary sore may be seen upon the tongue or lips; the mucous patch may be encountered upon the buccal mucous membranes, tonsils or pharynx; tertiary ulcerations or adhesions and scar forma-

tions in the posterior pharynx; or the presence of Hutchinsonian teeth may focus the attention of the trained observer upon this condition. And we must all remember to observe the greatest caution in handling these cases, that we do not accidentally inoculate ourselves or transmit the disease to others. Personally I never insert my fingers within a patient's mouth, whether I suspect any serious disease or not, without donning gloves. We are too apt to be quite careless, all of us, of some of our most valuable possessions, our fingers. A little caution in this respect may prove worth while, and rubber gloves are cheap insurance policies.

Pyorrhoea, carious or abscessed teeth, as well as pathological dentition, may be causative factors in either acute or chronic pharyngitis. They may cause the exacerbation of a chronic diseased tonsil to an acute attack. They may be the underlying cause of a catarrhal laryngitis, and any endeavor directed at the attainment of a normal nose and throat will fail if due care is not exercised to remedy any existing dental pathology. Singers especially should have the most exact care taken of their teeth. Some neglected bit of pathology here may later cause considerable damage to the delicate mechanism of the larynx.

The frequency, in literature, with which we encounter cases of dentures, extracted teeth, etc., in the bronchi and esophagus leads me to sound a note of warning. The aspiration of any foreign body is always a most serious affair and bound to be a most alarming accident from the patient's point of view. While great strides have been made in the field of Endoscopy in the last few years, prevention is much more preferable than cure. The removal of a foreign body from the bronchus or esophagus is ever a dramatic event, but one that may easily be turned to tragedy. Care in the handling of artificial dentures and of teeth, after extraction, especially during a general anesthesia, will considerably reduce the number of foreign body aspirations. I cannot help but feel that danger is courted when a tooth or root is extracted by means of the elevator alone. It would seem to me that some sort of holding forceps should be attached before it is allowed to come loose in the mouth. In the case of aspiration of a foreign body it is essential that the patient be moved no more than is absolutely necessary, because of the danger of dislodging the body, possibly to some more inaccessible location, where it will be even more difficult to effect removal. The case should be put under the charge of the otolaryngologist as soon as possible, in order that measures looking toward the removal of the offending material may be instituted.

I cannot miss this opportunity of saying just a word in regard to the X-ray. We are apt to make the mistake of considering this most

valuable addition to our diagnostic equipment as infallible. While it is a most worth-while aid, and one which we should employ always, when in any way indicated, we must not lose sight of the fact that it can only show us just so much—just the effect of certain histological structures toward the passage of the rays. It is not *the last word*. Much depends upon interpretation, and the personal element of error must always be considered. It is just one sign in the whole clinical picture—a most useful and valuable one, but not such as to overshadow all other evidence. This holds true, whether in the realm of dentistry or in whatever branch of medicine. Many of us have learned this through sad experience. The sacrifice of any structure, even a tooth, is a serious matter and should be justified by all possible clinical and laboratory evidence. And negative evidence is always only negative. Not long ago, I referred a case to a dentist where I felt sure there was an abscessed tooth, although the X-ray was plainly negative. The dentist agreed with me, in fact, felt even more strongly than I that the tooth was abscessed, and extracted. A large abscess was found in the crotch between the roots. Naturally this did not show upon the film. And in cases of doubt as to the pathology, both as seen clinically and by X-ray, why not observe the progress a bit, taking successive films over a space of time? I followed this course frequently in the management of mastoid disease, where the diagnosis is difficult, and find it a great help.

In conclusion, let me repeat the plea for the closest co-operation between the dentist and the otolaryngologist. Absolute harmony should mark their efforts. The diagnostic ability and skill of each should be at the constant disposal of the other. Careful consideration of the dental factors in the practice of Otology will do much towards the conservation of hearing. The intimate co-operation of the orthodontist and the otolaryngologist may prevent palatal deformities and do much towards the future normality of the nose. The exercise of due caution and otolaryngological consultation in the dental phases of antral disease may be a decided benefit to the patient. Nowhere else in the body is there a field more fertile for focal infection than in the mouth and pharynx, and great opportunities for accomplishing much of benefit await the workers in this region. Intelligent study of these various problems, together with the utilization of all the best diagnostic and surgical skill available, must result in the greatest satisfaction to the practitioner and to the well-being of the patient.

*** INTUSSUSCEPTION IN CHILDREN.**

By H. S. PRATT, M. D., Livermore Falls, Maine.

This paper will be a rather sketchy history of three cases of ileocolic intussusception in children and a short discussion of certain points of similarity in these cases, which may have some bearing on the etiology, pathology and treatment of the condition.

The first of these cases appeared January 21st, 1921. The patient was a boy, thirteen months old, well nourished, whose only previous complaint had been that of weak stomach. He had never been able to take whole cow's milk, was a light eater at all times, and was, in short, a difficult child to feed.

Two days before I saw him he began to have intermittent abdominal pain. He was given some physic, which worked well, but the attacks of pain continued. Bloody mucus appeared in the stools late on the second day. I saw the child late that afternoon. He did not seem in great distress; between the paroxysms he would laugh and play, though rather languidly; tenderness in the abdomen was not extreme and no mass could be palpated. His temperature was 99.8° by groin.

From the history, the bloody stools and the intermittent paroxysms of pain, a diagnosis of probable intussusception was made, and an operation arranged for the following morning. In the morning, the symptoms were more severe and unmistakable. Enemas returned nearly clear. The vomitus was dark green, but with no fecal odor, evidently from the upper bowel. Tenderness was more evident and better localized in the right iliac region. A mass could be palpated in that region, but nothing very definite could be determined as to its size or shape. There was more blood in the stools. The temperature was 100.5° by groin.

Operation through a right rectus incision disclosed a mass in the right iliac region which was readily delivered on the abdomen. The mass was an intussusception of about four inches of the ileum through the ileocecal valve. The invaginated ileum was swollen to about twice the size of the unaffected part, edematous and indurated; the bowel wall felt as if it were half an inch thick, and on reduction was found to be covered with a heavy fibrinous exudate. The reduction was accomplished without any great difficulty. Old adhesions were found around the base of the appendix and extending over the cecum on to the ileum, indicating previous inflammatory trouble. These adhesions were broken up so far as was practicable. The appendix was removed

while waiting for the color of the intussusceptum to improve. The result of the operation was immediate cessation of symptoms and uneventful recovery.

The second case was seen in consultation on January 23rd, 1922. The patient was a girl, aged four, whose previous history was not ascertained, but who had apparently been a reasonably healthy child. She had been taken suddenly, the night before, with vomiting, pain in the abdomen, tenderness of moderate degree over the whole abdomen, with rigidity more pronounced on the right side. No blood had been seen in the stools and there were no symptoms of obstruction. Her temperature was 102° . A diagnosis of acute appendicitis had been made and I concurred, without any suspicion that anything else was the trouble.

Operation, through a McBurney incision, showed a mass on the right side, which was brought out with some difficulty, owing to the fact that the appendix was firmly adherent to the posterior abdominal wall. The mass was an ileocolic intussusception about three inches in length, having the same appearance as the one previously described, and in addition many long, well organized, band-like adhesions extending over the cecum and ileum. The intussusception was reduced easily, the appendix removed proximal end first, and the most of the adhesions between cecum and ileum dissected away. Post-operative diagnosis, intussusception and chronic appendicitis. Results of the operation, cessation of symptoms and recovery, somewhat delayed by an infection of the incision, due to the dressing being wet with urine the first night following the operation.

The third case appeared March 1st, 1921. The patient was a boy one year old, with a previous history of extreme constipation. He averaged about one movement in three days. For several days previous this had become aggravated. The child screamed with pain while trying to evacuate his bowels, tenesmus was marked, vomiting was frequent, and blood stained mucus appeared in some quantity in the stools. His temperature was normal. The whole abdomen was rigid and tender, but neither tenderness nor rigidity was extreme. Obstruction was not complete, as enemas returned with some fecal material. A diagnosis of probable intussusception was made and an operation recommended.

Operation, through a right rectus incision, allowed a knot-like mass to be felt in the right iliac region. It was delivered on to the abdomen with some difficulty. The distal inch of the ileum was swollen, indurated and covered with fibrinous exudate, and appeared exactly like the intussuscepta of the previous cases. A firm band of adhesions extended from the cecum to the ileum and there were others around the base of

the appendix, which was not acutely inflamed. The intussusception was reduced, the appendix removed and the large ileocecal adhesion dissected away. Post-operative diagnosis, ileocolic intussusception, possibly chronic, reduced by traction in delivering bowel on to the abdomen, and chronic appendicitis. Result of operation, immediate cessation of symptoms and recovery, with permanent relief of constipation.

The most striking and significant feature of these three cases seems to be the positive evidence of previous inflammatory disease of the appendix and of the bowel in the region of the ileocecal valve. This is at variance with the classical description of a typical case of intussusception, which specifies a previous good health as one of the factors in making a diagnosis of intussusception. The previous histories of these children had not been good. The first patient had been a very difficult child to feed; the previous history of the second, though unfortunately it was not thoroughly investigated at the time, can be imagined from the inflamed appendix firmly adherent to the posterior abdominal wall and surrounding structures; and the third had a most unusually obstinate constipation. These symptoms were very likely due to reflex bowel disturbances from chronically diseased appendices.

This previous inflammatory disease may be a factor in the etiology of intussusception. It can readily be seen that adhesions extending out from the cecum on to the ileum would have a tendency during the process of organization, and thereafter, to draw the terminal segment of the ileum toward the ileocecal valve, and in this way predispose to, or even actually produce, the condition during some attack of irregular peristalsis. The invagination once begun, the rapid swelling and induration makes retraction impossible, peristalsis is stimulated by the presence of the hard mass within the bowel, and the constant effort of the bowel to force it out simply makes the condition progressively worse.

A diagnosis of intussusception should be easy in those cases which closely follow the classical description of a typical case; a previously healthy child, taken suddenly with abdominal pain and vomiting, with blood in the stools, a palpable sausage-shaped mass in the right iliac region, with prostration and subnormal temperature.

Unfortunately, as in all three of these cases, the proportion of atypical cases is large, with one or more of the essential symptoms absent, or other contradictory and confusing symptoms present. On the other hand, recognition of the exact condition is relatively unimportant, as the one condition most likely to be confused with intussusception is appendicitis, and both call for practically the same treatment, the earliest possible surgical intervention.

The prognosis in these cases depends entirely on early recognition and early operation, with all the emphasis on the latter. Taken early, before obstruction becomes complete, practically all cases should recover promptly. Even after obstruction is complete, but before the intussusception becomes irreducible or gangrene supervenes, the prognosis is fair. If late enough to require resection, however, the prognosis is very grave, and in the case of infants is practically hopeless, for of all the thousands of these cases that have been reported, less than twenty have survived after resection. In older children the mortality is about seventy-five per cent, following resection.

The treatment of intussusception should be considered purely surgical. It is time to discard entirely and forget such unscientific, uncertain and dangerous methods as inflation and hydrostatic pressure.

While admitting that possibly ten per cent of early cases might be reduced by these means, it can be readily accepted that operation would reduce these same cases as readily and as safely, and at the same time would safeguard the other ninety per cent. If any other argument in favor of operation were necessary, it would be that during the operation any predisposing factors, such as adhesions, could be eliminated, thus reducing the chances of recurrence.

While fully appreciating the fact that this group of cases is far too small to permit of drawing definite conclusions, the marked similarity in the pathological findings in these cases may excuse the following, which are offered merely as suggestions.

1st. That chronic appendicitis and typhlitis may be predisposing, if not actual etiological factors in intussusception.

2nd. That total absence of symptoms essential to the typical case should not prevent a diagnosis of intussusception.

3rd. That the prognosis in early cases is invariably good, if operated at once, and

4th. That every case, strongly suspected of being intussusception, should be given the benefit of the doubt and operated.

The dietetic importance of pure, plain, granulated gelatine has attracted so much attention, and the demand for more information has reached such a volume, that the Laboratories of the Charles B. Knox Gelatine Company have prepared a book of dietetically correct recipes with gelatine, for diabetes, nephritis, high blood pressure, gastritis, gastrointestinal disorders, fevers, constipation, obesity, and general mal-nourishment in infants and adults. This book will be mailed, upon request—postpaid and free of charge—by the Charles B. Knox Gelatine Company, Johnstown, N. Y., to any physician or dietician who requests it.

CASE REPORTS FROM THE CLINIC OF THE EASTERN MAINE GENERAL HOSPITAL, BANGOR, MAINE.

UPHOLSTERY TACK IN BRONCHUS NINE WEEKS—PNEUMONIA. RECOVERY AFTER BRONCHOSCOPIC REMOVAL OF TACK.

Patient, W. McF., aged 5 years, male. Admitted April 4, 1924.

Past history and family history contain nothing of note.

Present illness: Father states that about the middle of January, 1924 (about nine weeks before admission), while taking out tacks from seat of a chair, patient put one in his mouth and swallowed it. Boy choked, face turned black, brother rubbed outside of throat and it went down. A day or two later the boy coughed a good deal, without raising, and began to have a temperature and complain of pain in the right chest. This condition existed for about two months. During this time he was up and down, having a few days at a time when he would be much better, but never entirely well.

Two days before admission his father took him to doctor, who took an X-ray picture of the boy's chest, showing the tack apparently in the right lung. The patient was then referred to the Eastern Maine General Hospital for removal of the tack.

Patient entered the hospital on April 4th, bringing with him the X-ray film. This showed very clearly the tack lying at about a 45° angle, point up, as usual, at a point slightly to the right and below the level of the tracheal bifurcation. In view of the duration of the case it did not seem necessary to have another picture at this time.

Examination showed considerable dullness, with decrease of voice sounds and of vocal fremitus over the lower right chest. The temperature was 102, and the father said that it had been 103 when he left home. Pulse, 120. Respiration, 30. The examination otherwise was negative.

Operation immediately, without anesthesia. Patient in the Boyce position. A 5 mm. bronchoscope was passed with Jackson technic. Considerable purulent material had to be removed by suction and sponge pumping before tack could be seen. After some minutes it was located in the right lower lobe bronchus. The point was maneuvered into the tube and grasped with the Jackson forceps. Axis traction brought it up to the vocal cords without difficulty, where it pulled out of the forceps and the child coughed it up. Time, about 35 minutes.

Patient returned to bed, considerably tired but otherwise in good condition, coughing considerably and raising a large amount of mucopurulent material.

The next morning the temperature had fallen to 99°, went up that

night to 100°, came down again the following morning to normal and remained normal for the rest of his stay.

The pulse was 100 the next morning and did not again go above that figure, varying from 84 to 98.

The respirations fell to 25, and, with one or two short periods, when they rose to 30, stayed most of the time between 20 and 25.

The patient at no time after the operation had any dyspnea. He was restless for the first 24 hours after operation. After this time he rested well, seemed comfortable and his appetite increased very rapidly.

Chest examination the following morning showed breath sounds much clearer over the right lower chest, with some fine and coarse rales.

April 8. Respiration rate was slightly above normal. There was some improvement of the signs over the right base. X-ray showed some increase in density over the right lower pulmonic field consistent with pneumonia.

April 11. Patient was allowed a back rest.

April 16. Patient out of bed; chest signs improving, but still considerable dullness at the right base and slight limitation of motion. X-ray report: "There is some clearing of the infiltration, but in extreme base the density is consistent with a small amount of fluid."

April 21. Child has showed steady improvement in physical signs and general condition. There is still a suspicion of a small amount of fluid at the right base. This, it is felt, will probably clear up. Child discharged and referred to family physician for observation and treatment. Time in hospital, 17 days.

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Patient, S. M. A., aged 6 years, male. Admitted July 6, 1924.

Diagnosis—Provisional: Injury to some abdominal organs. Final: Intussusception.

Operation—Laparotomy; intussusception reduced. Discharged July 25, 1924.

Result—Recovered.

Past History—This child has always been apparently normal and healthy. He has had measles, whooping cough, and influenza, with no complications. No accidents except the present one. His tonsils and adenoids have been removed; otherwise no surgical operations.

Family History—No history of cancer, tuberculosis, mental or other serious diseases. Father and mother both injured in same accident in which patient was injured, and both received broken bones. About seven days after the accident the father showed acute abdominal symptoms, and upon operation a false diverticulum of the ilium was located, causing a nearly complete obstruction of the bowels.

Present Injury—The child was riding with his father, mother and some friends in an automobile, twenty-odd miles from this city, when the accident occurred in which his father's machine collided with another automobile. The collision resulted in his father's machine leaving the road and turning over in the ditch and being practically demolished. The father, mother, child and friends were all injured and were admitted to this hospital for treatment. Child complained of pain in right half of abdomen. Vomited liquid, but no food substance.

Physical Examination shows a well-nourished child about six years of age, in bed, conscious and alert, but having an anxious expression and very pale. Pulse, 130; respiration, 25; temperature, 99.5°; patient apparently in state of shock. Examination of head, including eyes, ears, nose, throat and mouth apparently negative. No palpable cervical glands. Examination of chest and heart; no murmurs heard. Size and apex beat apparently normal. Heart sounds of good quality. Action rapid but regular. Lungs: no dullness or rales. Fremitus apparently normal. Abdomen: No mass, rigidity, hernia, or post-operative scars of the abdomen. No distention. Spleen not palpable. Kidneys and liver apparently normal. Tenderness and muscular spasm present over the right upper and lower quadrant. Percussion showed tympany over the left half of the abdomen, with dullness, which was slightly shifting over abdomen, right half. The tenderness of the right half of the abdomen could not be definitely located. It was general. G. U., rectum, and N. P. apparently normal. Extremities: Upper extremities apparently normal. Lower extremities apparently normal, there being no pain or swelling. Knee-jerks equal and present. No ankle clonus or Babinski.

Blood Examination—White blood cell count, 19,800; red blood cell count, 4,460,000. Hemoglobin, 70%. Differential white count: polymorphonuclears, 76%; small lymphocytes, 22%; large lymphocytes, 2%; red cells normal.

Examination of Urine—Sp. gr., 1016. Color yellow, alkaline reaction; no sugar or albumin. Sediment: Many bacteria, frequent phosphates, occasional epithelial cells and hyaline and granular casts.

Clinical History—Patient admitted at 2.40 P. M. to the Orthopedic Service and placed on the "danger list." The physical examination

disclosed the findings recorded above. Because of the abdominal symptoms, and the fact that no fractures were found, the patient was returned to the Surgical Service. At 7.30 P. M. I called my assistant, and, although we could not determine what abdominal organs had been injured, decided that an exploratory laparotomy should be performed and patient was prepared for same and ordered to the operating room.

Pre-Operative Diagnosis—Injury to abdominal organs.

Operation—Laparotomy. Right rectus incision extending one inch above and three inches below umbilicus. Bloody serum found in the abdominal cavity. Bladder found full. Liver, kidney, spleen and pancreas examined and found apparently normal. Large intestine distended. Small intestine followed along from ilio-cecal junction to stomach, and about two and one-half feet to three feet from stomach an intussusception, involving two or three inches of gut, was found. A second intussusception was found about eight inches from the first, and four inches from that point a third one was located. The abdomen was closed in the usual manner. One rubber tissue drain was inserted in the wound down to the peritoneum. The patient returned to the ward at 9.30 P. M. and made a good ether recovery. He vomited but once, the vomitus being a large amount of liquid.

Post-Operative Diagnosis—Intussusception.

Post-Operative Treatment—Treatment consisted of giving the patient normal salt solution per rectum every four hours, and hot water only by the mouth for the first three days. The rubber tissue drain was removed on the second day. The saline per rectum and hot water by mouth were omitted on the third day. The diet was gradually increased from liquids to soft solids until the fifteenth day after operation, when house diet was given. Daily enemas were given after the third day, with good results. The patient was given extra pillows on the eleventh day and allowed out of bed on the fifteenth day. He was discharged apparently recovered on the nineteenth day. His recovery was apparently uneventful.

Comment—This case seems of special interest to the medical profession, since there seems to be no case reported in medical literature recording a triple intussusception following injury or other cause.

CHARLES H. BURGESS, M. D.,
Visiting Surgeon,
Eastern Maine General Hospital,
Bangor, Maine.

THE SCHICK TEST.

By DR. EARL S. HALL, Westbrook.

The Schick test is an extremely reliable means of separating those individuals who have antitoxic immunity from those who have none. Although a simple test, it must be carried out with care. The toxin must be retained intracutaneously and the toxin must be neither 25 per cent. more nor less than the amount.

The reliability of the Schick test and the immunizing doses is vouched for by the fact that more than 2,000,000 children have received this treatment without a single serious result. Dr. Park has never seen a single severe case of diphtheria in a person with a negative Schick.

The reaction, known as the Schick test, was developed in 1907 by Dr. Perquet and Dr. Schick. Not everybody exposed to diphtheria acquires the disease; in fact, certain workers have found that they could not infect themselves by transplantation of infective membrane to the tonsils. After the discovery of antitoxin it was found that about 80 per cent. of newborn children possessed this antitoxin substance. After nine months this tended to disappear, but was regained with increasing age. These findings were of fundamental importance in the further development of the work. By boiling down the toxin to a tenth of its volume, Dr. Schick found that not only children with diphtheria, but also others who had never had it, especially at those ages between the twelfth month and the fifth year, gave positive reactions. Diphtheria is toxic for anyone who has no antitoxin in his body. The positive reaction is due to lack of antitoxin. The negative reaction is due to the presence of antitoxin in the body.

The Schick test, therefore, can be used to find out whether active immunization should be continued or not. This is of much benefit in the treatment of post-diphtheria paralysis and in those cases of diphtheria which are slow to clear up after what seems to be a sufficient amount of antitoxin has been given.

Because it has been found that diphtheria is much more virulent in the country than in the cities, we should urge all parents to have their children Schick tested and immunized when necessary, particularly as regards children under five years, for from 70 to 85 per cent. of all diphtheria is found in children under five years of age. Another factor which should cause us to urge its use is the delay that we are often caused by the time it takes to get a report back from the laboratory, it sometimes being as long as four or five days. One does not have to worry at that time if he is sure the child has had a negative Schick reaction.

THE TEST.

The material for the test usually comes in capillary tubes, the contents of which are put into a vial of salt solution and mixed. I have found that by stretching the skin on the forearm the injection can be made very easily and almost painlessly. The younger children do not cry, as a rule, particularly if they do not see the test done. However, if the first one cries usually all the rest will. I use a 1 c.c. record syringe and inject 2 c.c. intracutaneously. This injection should produce a small slightly raised white area. With the aid of a nurse it is a simple matter to do from 40 to 60 children an hour. The forearms are cleansed with alcohol before the injection.

I usually see the children on the second and fifth days after the injection, when I determine the positive and negative reactions. When the reaction is positive, I find a slight infiltration on the second day, which gradually increases until it is about the size of a five-cent piece on the fifth day. This persists for a week or ten days and then gradually fades, leaving usually a brownish scale.

The Schick test, whether negative or positive, leaves absolutely no scar. I consider those children negative who on the second and fifth days show no reaction whatever. The control test, which consists of a similar injection in the other arm, except that the toxin has been heated to destroy its toxicity, I do not use except in a few adults. Because the younger children are so susceptible, I do not believe that the control or the pseudo-reaction should be considered; in fact, in the public schools of Westbrook I do not attempt to Schick test any pupils under six years of age, but give them the toxin-antitoxin mixture. From the second grade to the last year in high school I do the Schick test.

We have not had any severe reactions, although occasionally a child would complain of a sore arm. Last winter I used a small amount of frozen toxin-antitoxin, not knowing that it had caused many severe reactions in Massachusetts. Fortunately the material I was using came from the New York City Board of Health and was sufficiently diluted so that all the reactions I got were a few sore arms. No parents made any complaint.

The ideal way to do diphtheria work is to do a Schick test, then the three injections of toxin-antitoxin, and six months after that another Schick test. In Westbrook I have not done the second Schick test because the work was in its infancy, and I was afraid the parents would object if I injected their children too many times. Our results have been very gratifying, for among the 1,300 public school pupils in Westbrook this year we have not had one case of diphtheria, whereas in the

parochial schools, which have about 700 pupils, and where there is no prevention work done, there were about twenty cases with four deaths. It is true that there is an element of good luck in our record, because not all pupils were Schick tested or immunized. About 60 per cent. of the public school pupils have been tested and immunized, particularly the younger grades.

When pupils were found to be Schick positive they were given at weekly intervals for three weeks a 1 c.c. dose of toxin-antitoxin. This material is made by slightly under-neutralizing a given amount of toxin with antitoxin. It comes all prepared, and all the doctor has to do is make the injection. This production of antitoxin takes from one to six months and should then be followed by a Schick test, when, if positive, the injection should be given again. About 85 to 90 per cent. of susceptible children or adults develop sufficient antitoxin to give a negative reaction and produce marked if not absolute protection for life.

Toxin-antitoxin injections should not be given within two weeks after injection of antitoxin, because it will spoil the antitoxin. 80 per cent. develop immunity after three injections; 70 per cent. develop immunity after two injections; 50 per cent. development immunity after one injection.

The Schick test is of considerable use in the control of epidemics, particularly in schools and institutions. All children in institutions should be either Schick tested or given immunity of how epidemics could be handled, particularly in schools.

1. Schick test all pupils.
2. If possible, swab all patients, nose and throat.
3. Isolate the next day all Schick negative patients.
4. See all Schick positive patients twice a day for a few days.
5. Test for virulence all positive swabs from Schick negative reactions, release a virulent, isolate all virulent carriers.
6. Commence at once to inject toxin-antitoxin into all Schick positive reactions.

County News and Notes.

AROOSTOOK.

AROOSTOOK COUNTY MEDICAL ASSOCIATION.

The semi-annual meeting of the Aroostook County Medical Association was held at the Matoaka Club Rooms, Caribou, October 14, 1924.

The following doctors were present: Gibson, Kalloch, Donovan, Sawyer, Harmon, Gregory, Manuel, Potter, Bennett, Hagerthy, Upham, Carter, Mann, Doble, Boone, Bundy, Blossom, Dunham, Mitchell, Huggard, Damon, Sincock, Bantom and Ebbett.

The following visitors were present: Drs. Hall, Bryant, Fellowes, Merrill, Lombard and Thompson.

The resignation of Dr. F. H. Jackson, President, who was elected at the annual meeting in June, was read and accepted, and Dr. Gregory, of Caribou, automatically became President and took the chair.

The President called for the minutes of the last meeting and they were read and approved.

It was motioned and so voted that a vote of thanks be extended to the Matoaka Club by the President for the use of their quarters for this meeting.

The following Censors were elected: Dr. Frank Kilburn, for three years, and Drs. C. H. Harmon and H. J. Kalloch were appointed *pro tem*.

Three applications for membership—Dr. F. W. Manuel, of Houlton, signed by Drs. W. B. Gibson and J. G. Potter, Dr. R. A. Dunham, of Easton, signed by Drs. H. C. Bundy and S. W. Boone, and Dr. F. O. Blossom, of Caribou, signed by Drs. Chas. F. Thomas and G. C. Upham—were received, and upon favorable report of the Board of Censors, Drs. Kilburn, Harmon and Kalloch, they were voted into the membership of the Association.

Outstanding bills were accepted and voted to be paid.

Dr. H. W. Hall, of Augusta, read a very instructive paper on "X-Ray and Ultraviolet in the Treatment of Skin Conditions." In the absence of Dr. T. S. Dickison, of Houlton, the paper was discussed by Drs. Doble and Carter, of Presque Isle.

Dr. B. L. Bryant, of Bangor, then read a paper on "Periodic Health Examinations," and also gave instruction in regard to group

policy insurance, which all members of this society in good standing are urged to take out.

The meeting then adjourned, and dinner was served at the Vaughn House at 1.00 o'clock.

The meeting was again called to order at 2.00 o'clock, when Dr. Lombard, of Presque Isle, gave an instructive paper on "The County Health Unit," showing the advisability of having such a unit in Aroostook County. The paper was discussed by Drs. Bennett and Boone and several others, and a unanimous vote was then passed approving the county health unit as proposed by Dr. Lombard.

Miss Gladys Miller, of Caribou, then gave a talk on the work of the branch laboratory in Caribou, in which she explained the variety of tests which could be made at the laboratory, approximate cost, quickness of returns, and urged that all doctors present make free use of the facilities of the laboratory in order that the State Board of Health will allow it to be retained for the county use.

Dr. F. W. Manuel came next, with a talk on "The Management of Primiparous Patients in Pregnancy," and also gave a review of the anæsthetics, speaking very favorably of the gas-oxygen in obstetric cases.

Dr. W. E. Sincock was not present to give his paper, but we expect to have it at the next meeting.

Dr. F. L. Gregory made an inquiry in regard to treatment of venereal diseases in the public hospitals, and it was the concensus of opinion that such cases must be admitted for care and treatment when occasion demands.

The meeting then adjourned, and most of the doctors present inspected the Cary Memorial Hospital, finding it very much up-to-date and beautiful in design and equipment.

In view of the fact that excellent hospitals are in all the towns of Aroostook where medical meetings are held, it would seem that a clinic should take some part of our meeting, in which interesting and unusual cases could be demonstrated to all attending physicians. It is hoped that this improvement may become a feature of our future meetings.

JOHN G. POTTER,
Secretary.

CUMBERLAND.

CUMBERLAND COUNTY MEDICAL SOCIETY.

The sixty-eighth stated meeting of the Cumberland County Medical Society was held at the Congress Square Hotel, October 30, 1924.

The meeting was called to order at 7.30 P. M., by Dr. F. N. Whitter, President.

There were present ninety members and several guests from other county societies.

The reading of the records of the previous meeting was omitted.

The applications of the following were received and referred to the Board of Censors: Drs. F. D. Dorsey, Reginald Lombard, Wm. A. Holt, W. E. Burke, W. R. Needelman and E. E. O'Donnell.

President Whittier appointed Dr. F. Y. Gilbert chairman, and Drs. Thomas Tetreau and J. L. Pepper, members of the Public Relations Committee.

Dr. Henry A. Christian, of Boston, Mass., Physician-in-Chief of the Peter Bent Brigham Hospital, spoke on "Some Phases of the Nephritis Problem." He mentioned the value of the history of a case; the advantages of a classification according to the clinical origin rather than from the anatomical or pathological condition; the importance of following the cardiovascular system; the necessity of a more careful examination of the renal function; the helpfulness of a fundus examination, and the need of watching the general condition, especially the weight.

At the conclusion of his remarks, at the suggestion of President Whittier, a rising vote of thanks was given to Dr. Christian.

Many members availed themselves of the opportunity of asking questions, all of which Dr. Christian very kindly answered.

Voted to adjourn. Adjourned.

E. E. HOLT, JR.,

Secretary-Treasurer.

KENNEBEC.

KENNEBEC COUNTY MEDICAL ASSOCIATION.

The quarterly meeting of the Kennebec County Medical Association was held at the Elmwood Hotel, Waterville, Me., Tuesday evening, October 2, 1924.

Dinner was served at 6.30 P. M., followed by a business meeting, which was presided over by Dr. Herbert W. Hall, President of the Association.

The report of the Secretary was read and approved.

Drs. Alva Gwin and Matilde Louise Maerz, both of Augusta, were elected to membership.

The application for membership of Dr. Benjamin B. Santosky, of Augusta, was received and referred to the Board of Censors.

Resolutions were read on the death of Theodore E. Hardy, late of Waterville. It was resolved that this tribute to Dr. Hardy be made a part of the records of this society and a copy be sent to his immediate family, with our expression of deepest sympathy.

The address of the evening was given by Dr. W. R. McAusland, of Boston, chief of the Orthopedic Department of the Carney Hospital, on "The Treatment of Stiff Joints," which was very interesting and helpful

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to those present. The paper was illustrated by moving pictures, the the United States Public Health Service in Maine.

Dr. McAusland and Dr. William E. Preble, of Boston, who accom-machine being operated by Dr. George H. Coombs, of Augusta, head of panied Dr. McAusland, were made honorary members of the Association.

The guests and members present were: Drs. R. L. Reynolds, M. M. Small, N. Bisson, E. W. Boyer, M. S. Goodrich, J. E. Poulin, B. P. Hurd, F. C. Thayer, J. Fred Hill, P. S. Merrill, F. E. Wheeler, H. W. Abbott, E. P. Fish, J. G. Towne, L. G. Bunker and V. C. Totman, of Waterville; Donald S. Knowlton and F. H. Badger, of Winthrop; R. H. Stubbs, G. H. Coombs, F. R. Carter, Matilde L. Maerz, Alva Gwin, Benjamin B. Santosky, H. W. Hall, G. R. Campbell and William J. O'Conner, of Augusta; W. L. Gousse, of Fairfield; C. R. Simmons and E. P. Williams, of Oakland; C. E. Richardson and O. J. Caza, of Skowhegan; A. B. Libby, Gardiner; W. R. McAusland and William E. Preble, of Boston. Members, thirty; guests, five.

Respectfully submitted,

FREDERICK H. CARTER, M. D.,
Secretary and Treasurer.

PENOBSCOT.

PENOBSCOT COUNTY MEDICAL SOCIETY.

The annual meeting of the Penobscot County Medical Society was held at the Bangor House, November 18, 1924, C. J. Hedin, M. D., presiding.

The following officers were elected for the ensuing year:

President—A. K. P. Smith, M. D.

Vice-President—Luther S. Mason, M. D.

Secretary and Treasurer—H. D. McNeil, M. D.

Member of the Board of Censors for three years—Earl S. Merrill, M. D.

Delegate to Maine Medical Association—L. H. Ford, M. D.; alternate, L. H. Smith, M. D., Winterport.

The retiring President, Dr. Carl J. Hedin, gave an intensely interesting paper on "Origin, Nature and Types of Reaction in Mental Disorders."

The following doctors were present: C. J. Hedin, A. K. P. Smith, D. A. Robinson, W. E. Fellows, J. B. Woods, H. D. McNeil, A. H. Schriver, Brewer, H. C. Scribner, J. F. Cox, J. B. Thompson, C. H. Burgess, M. W. Garrison, F. D. Weymouth, E. L. Herlihy, F. B. Ames, N. Cook, Newport, E. S. Merrill, M. C. Moulton, J. A. Lethiecq, Brewer, W. C. Hall, Orono, A. J. Bradbury, Old Town, H. M. Goodwin, J. F. Starrett, C. R. O'Brien, H. C. Knowlton, Hampden, H. W. Johnson, H. E. Thompson, L. H. Smith, Winterport, A. E. Small, C. M. Thomas, Brewer, L. S. Mason, E. E. Brown, J. P. Russell, South Brewer, Daniel McCann, H. W. Simpson, L. H. Ford.

Notice.

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Common..... Occasional..... Rare.....
2. Can the cause of such cases be traced to the use of lead pipe in plumbing?
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3. Have there ever been any epidemics of lead poisoning in your territory?
If so, please state briefly the particulars.....
4. What is the general attitude of the profession toward the use of lead pipe for plumbing?
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Not detrimental to the health..... Indifferent.....
5. Have any articles on this subject ever appeared in your publication?
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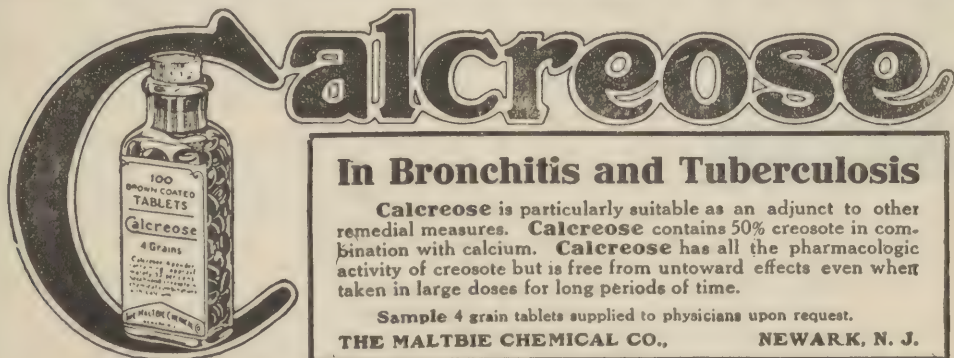
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No. 5

AN APPEAL FOR CLOSER CO-OPERATION BETWEEN THE GENERAL PRACTITIONER, THE GENERAL SURGEON AND THE UROLOGIST.

By EARL S. MERRILL, M. D., Bangor, Me.

This type of paper frequently appears in some one of the journals, yet it seems to me that it cannot be over-emphasized. Our knowledge is steadily being added to, and it is no longer possible for a physician to assimilate it all, but we are all under more or less of an obligation to be posted on the more specialized procedures, at least to such an extent that we will know what can be done and something of the indications for them.

The development of the cystoscope with ureteral catheterization, estimation of renal function and pyelography has made possible very accurate diagnosis in the majority of pathological conditions of the bladder, ureters and kidneys, and it has placed the treatment of these diseases on a definite and logical basis, whereas without the aid of the cystoscope diagnosis of upper urinary tract diseases, for the most part, is inaccurate or unnecessarily delayed. That does not mean that every patient who presents himself or herself to the family physician with a complaint of frequency of urination should be cystoscoped. The cause for the symptoms can be frequently discovered by history, physical and laboratory examination, and the treatment indicated may be obvious. It does mean, however, that a patient who has symptoms referable to

* Read before the Maine Medical Association, June 26, 1924.

the urinary tract which persist over a period of several weeks, or who has recurrent attacks of urinary symptoms, should have the benefit of cystoscopic examination.

The reason for that is obvious and it is the only reason and the only excuse for modern urological methods. It is simply that a wide variety of pathological conditions of the upper urinary tract may be ushered in with the same set of symptoms. At the one extreme, it may be a comparatively simple thing, while at the other the patient's kidney or life may be at stake. I will prove that by actual illustrative cases, but first, what are the objections to cystoscopy? Certain people, even physicians, have what seem to them to be reasonable objections. In the minds of the physicians, for the most part, I believe, they are based on a failure to fully realize the possibilities of accurate, early diagnosis and logical treatment. In the minds of the laity, they are based almost entirely upon a lack of any conception whatever of what an aid to diagnosis it is. Both physicians and patients believe it to be a very painful procedure. At times and under certain conditions it may be painful, but no more so than many other examinations and treatments used every day in the practice of medicine and surgery. For the most part, it is not necessary for cystoscopic examination to be painful. By the use of 2% Butyn in the urethra and of the vesical side of the sphincter, with the judicious use of morphine, it is possible to cystoscope practically all patients, causing them no more than slight discomfort. So there is no objection worth considering, in the face of a real indication. Are there any contraindications? No, except perfectly obvious ones, such as purulent urethral infection or an extremely sick patient.

What can be done with the cystoscope in the way of diagnosis and treatment? A very accurate diagnosis can be made of practically all pathological conditions of the bladder, such as tumors, including non-malignant papillomas, and cancer, papillary cystitis, ulcers, diverticuli, stones, median lobe hypertrophy of the prostate, the formation of a median bar, and other more unusual diseases. The ureters can be seen to function. Blood or pus coming from one or both sides can be observed. Wax-tipped bougies can be passed into the ureters and the presence of a small stone in the ureter demonstrated. Strictures and kinks of the ureters can be diagnosed by the X-ray preceded by the injection of solium iodide.

Ureteral catheterization allows the collection of urine from each kidney separately. These specimens can then be studied by smears, cultures and guinea-pig inoculation. The appearance, time and the

amount of phenophthalein excreted gives an approximate estimation of the function of each kidney. Sodium iodide injected into the kidney pelvis and the ureter will show, on X-ray, their size and contour, making it possible to diagnose early hydronephrosis and pyonephrosis, tumors of the kidney and kidney pelvis, and will give other valuable information.

What is the value of this accurate diagnosis? From the purely diagnostic standpoint it has the same value as any accurate diagnosis, but what is of greater importance, it places the treatment on a more logical basis. Having determined the exact nature of the pathology in the bladder, whether it be tumor, stone, diverticulum or any other condition, the treatment indicated is usually obvious.

Bladder lavage with different antiseptic solutions may be carried out indefinitely without any appreciable benefit if the patient has a stone or a diverticulum. A patient may have partial urinary obstruction from a papilloma on the anterior wall of the bladder or from median lobe hypertrophy of the prostate, and the prostate may not be enlarged on rectal examination and the urethra may be patent to the passage of sounds and catheters. Unless the condition is diagnosed and attacked without undue loss of time, the urine will become infected and the retention, plus infection, results in pyelitis and pyelonephritis.

Dilatation of the ureters with ureteral bougies will help the passage of a stone. If there is a stricture with pyelitis and pyelonephritis, dilatation of the ureter will improve the drainage. The infection, especially if caused by the colon bacillus, will improve and frequently clear up itself, just as a urethritis, prostatitis, or cystitis will improve and clear up following dilatation of a urethral stricture. Ureteral stricture is not infrequently the cause of hematuria. When that is the case, ureteral dilatation will relieve it.

Lavage of the kidney pelvis results in many cures of pyelitis and many more instances of improvement. The reason for that is probably that they have better drainage. That partial blocking of the ureter may be due to swollen mucous membrane, stone, a kink, or a stricture. These conditions are common. Any patient with pain in one or the other kidney region or along either ureter should be cystoscoped, because that pain means poor drainage, back pressure and injury to the kidney.

Successful treatment of hypernephroma, carcinoma and tuberculosis of the kidney makes early diagnosis an absolute necessity.

Cystoscopy is also of great assistance in differentiating between

upper urinary tract diseases and diseases of the adjacent organs, more especially perhaps, appendicitis, and diseases of the female pelvic organs. Twenty-five per cent. of the kidney stone and ureteral kink or stricture cases admitted to the Massachusetts General Hospital have had an appendectomy without relief of their symptoms.

Cystoscopic examination is not limited to adults. There are small cystoscopes made for children. Babies and children are very prone to have pyelitis, as we all know. Most commonly the etiology is the colon bacillus, and fortunately the most of the cases clear up with forced fluids and changing the reaction of the urine from acid to alkaline. Many cases clear up without treatment of any kind. Occasionally, however, a pyelitis will persist for a long time. When that happens there is a definite indication for cystoscopy. Why? Because the passage of a ureteral catheter with pelvic lavage will frequently result in a cure and will nearly always give considerable improvement. What happens if they are allowed to go on? The infection persists for some reason, perhaps for many. The patient may have poor resistance, the infecting organisms may have unusual virulence, there may be poor mechanical drainage because of ureteral stricture, swollen mucous membrane or a kink, or there may be a combination of these and other unknown factors. There will be remissions when the child is practically free from symptoms, but they are only remissions. The upper ureter first and then the entire ureter will dilate, lose its tone, become kinked and tortuous. The infection, plus the back pressure, results in infection of the kidney parenchyma and absorption. There is no mere hypothetical picture. It actually occurs. That individual arrives in early adult life an invalid or semi-invalid, and why? Because the patient is a child we lack the courage to advise and do the thing which would immediately occur to us as indicated if the patient were an adult.

Children may have certain congenital malformations of the ureters and kidneys and they may have malignant tumors of the bladder and kidneys. So when they have persistent urinary symptoms or grossly abnormal urinary findings there is a real indication for cystoscopic examination. General anesthesia is frequently necessary, but this offers no great objection, especially if gas and oxygen is used.

I will cite a few cases to illustrate some of the points I have tried to make, and because of the lack of time it is necessary to present them very briefly.

The first is that of a man, 61 years old, who had had hematuria, of two months' duration, slight increase in the frequency of urination, and occasionally a little pain at the end of urination. Cystoscopy revealed

a papillary tumor high up on the anterior bladder wall. Because of a rather broad base, there was a question of its being malignant. Because of its location, excision was chosen as the method of attack. Microscopic examination showed certain areas which were suggestive of malignancy. At the end of the third year afterwards there was no evidence of a return of the tumor. This case brings out the fact that hematuria may be the first symptom of bladder tumor, and that it is no indication as to its malignancy or non-malignancy, also that it is by no means always easy to differentiate between a malignant and non-malignant papilloma even with microscopic examination. This emphasizes the importance of early cystoscopic examination.

The next is a case of a man, 47 years old, who had occasional hematuria, some frequency of urination and at times sudden stopping of his stream, associated with pain referred to the penis. Cystoscopy revealed three papillomas, one on the anterior, one on the lateral wall and one just posterior to the right ureteral orifice. They were removed by fulgeration and radium. This patient only lost a few days' work during the course of his treatment. These tumors tend to recur. A combination of fulgeration and radium offers the best treatment.

I will cite two cases together, both of them women, and both between 65 and 70 years of age. They each gave a history of considerable frequency of urination, with some burning, of several months' duration. Examination of the urine showed numerous pus and epithelial cells in both cases. Cystoscopy in one case revealed a small tumor just lateral to the right ureteral orifice. This tumor was clinically cancer. In the other, cystoscopy was essentially negative, except for a cystitis limited to the trigone with about $1\frac{1}{2}$ ounces residual urine due to a marked cystocele. Each of these patients presented themselves with practically the same symptoms, yet the pathological conditions responsible were radically different.

I am taking the liberty to cite two cases noted by Dr. R. F. O'Neil, of Boston, in a recent article in the *Journal of the A. M. A.* The patients were both men who had been treated for a long time for prostatitis. Dr. O'Neil took the trouble to examine a third glass specimen of urine, and in both cases found them to be cloudy and loaded with pus cells. In one case cystoscopy revealed a diverticulum of the bladder, which was cured by operation, while in the other the pus was found to be coming from the left kidney, where a stone was found. In both of these cases, just the simple procedure of obtaining a third glass specimen of urine showed that there was trouble in the bladder or higher up.

They illustrate the fact that when a condition does not clear up with the ordinary treatment, a more careful and thorough examination usually reveals the reason.

My next case is that of a woman, 41 years old, who presented herself with symptoms of a very acute cystitis, namely, great frequency and urgency and occasional incontinence of one year's duration. There was considerable smarting and burning on voiding. Her urine was strongly alkaline, contained gross blood, many pus cells and epithelial cells, but no organisms were found on culture and none were seen in the sediment, with stained smears. Cystoscopy revealed an edematous, posterior portion of the trigone. The urine remained persistently alkaline, with large doses of acid sodium phosphate and sodium ben-beefy-red bladder mocosa, with an incrusted, ulcerated area on the zoate. A suspension of Bulgarian Bacilli with milk sugar was injected into the bladder every day, and was accompanied by some improvement, although the urine remained alkaline. It was decided to try arsphenamine, although the Wasserman was negative and the patient showed no signs of syphilis. There was an immediate, very marked improvement. The urine became acid on the second day after the first treatment, and all of her symptoms disappeared. Cystoscopy three weeks later revealed the incrustations all gone and the ulcer healed. This is an interesting case from the standpoint of diagnosis and reminds us again that syphilis is not to be denied even if the Wasserman and the patient deny it.

I wish to cite a case of an unmarried woman, 41 years old, who gave a history of gross blood in every specimen of urine for three months. She had had a little blood in several specimens of urine during the preceding year and a half. She occasionally had a sharp, stabbing pain in the right flank of a few seconds' duration. Recently she had had a feeling of discomfort in the right kidney region. Cystoscopy showed a very acute kink or angulation in the right ureter just below the lower pole of the kidney. There was a slight tendency for the lower calyx not to fill well, which was suggestive of malignancy. An exploratory operation was done. There was a band of tissue extending across the ureter at the site of the kink. This was divided, the ureter opened at the ureteropelvic junction and dilated down to the bladder. Since operation the patient's urine has been free from blood and she has had no pain whatever. A hypernephroma or carcinoma of the kidney could well have had the same symptoms and were seriously considered in this case.

My next case is that of a young man, 28 years old, who gave a history of almost constant pain in the region of the left kidney for four years. This was associated with frequency, and at times sudden stopping of his urine, with pain referred to the penis. He had had one exploratory operation on the left kidney and was told that it was tuberculous. Cystoscopy revealed a marked pouching into the bladder cavity of the left intravesical ureter, the ureteral orifice being situated on the tip of this pouch. On catheterization of the left ureter this pouch collapsed and a large amount of urine drained out. Pyelography and ureterography revealed a markedly dilated kidney pelvis and greatly dilated and tortuous ureter. Colon bacilli and pus were obtained from both kidneys. With dilatation of the left ureteral orifice the patient has been relieved of his pain and most of his frequency. Early cystoscopic examination, with pyelography and ureterography, would have cleared up the diagnosis and the patient need not have had a dilated, tortuous ureter. Operative treatment of this patient may be necessary for permanent relief.

I have seen within a year two advanced, undiagnosed cases of tuberculosis of the kidney. In both patients the left kidney was a sac of pus and functionless. Both patients died. One patient had been treated with bladder lavage for two years. The other patient had had two exploratory laparotomies. At the time of the second operation she had incontinence. Somehow it seems to me that this sort of thing ought not to happen.

I have a patient who has had pyelitis since childhood. He cannot remember when he did not have frequency of urination and either discomfort or actual pain in the region of the right kidney. There are times when he is practically free from symptoms, but these are relatively few. He is now 30 years old, a farmer, and cannot do a hard day's work without being laid up the next day. He has a bilateral colon bacillus pyelitis, a right ureter which is markedly tortuous and kinked, and dilated to about ten times its normal size. He has been free from pain since ureteral catheterization. This patient's condition is a fair example of what happens in those cases of pyelitis in children which do not clear up. He would have stood a fair chance of a cure had his condition been treated with ureteral dilatation and pelvic lavage years ago. At least his present condition could have been prevented to a large extent. Operative treatment of this patient may be necessary for permanent relief.

I have tried to show reasons why early cystoscopic examination in

a great many instances is advisable and necessary for intelligent and successful treatment of pathological conditions of the upper urinary tract. I have covered briefly what can be done with the cystoscope in the way of diagnosis and treatment, and I have cited a few cases to help bring out some of the points I wished to make.

In closing, let me say that the signs and symptoms of upper urinary tract diseases are few, and they are often confusing. Each and every disease cannot have a separate sign and symptom of its own, so they have to be satisfied and warn us by different combinations of these few. However, if we are willing to take a careful, complete history, do a careful physical examination, and make our laboratory examination equally careful, we can arrive at a very accurate diagnosis in some instances, and at least a working diagnosis in a surprisingly large number of cases.

PHYSICAL EXAMINATION IN PULMONARY TUBERCULOSIS.

By W. C. JENSEN, M. D., *National Sanatorium, Tennessee.*

The various methods of physical examination employed in diagnosing pulmonary tuberculosis are well known to every physician, but unfortunately the busy practitioner is prone to rely entirely on his stethoscope, resulting, of course, in the overlooking of findings of exceeding importance to be obtained by the other methods of examination, which, when correlated with the results obtained by auscultation, make evident the diagnosis in many cases. Pottenger has said, "The physician who is not expert in examining chests must not make his diagnosis depend upon auscultation or upon any other single method of examination. If he does he will only diagnose late tuberculosis." As it is, statistics prove that by far the greater per cent. of cases are either moderately or far advanced before they are diagnosed.

Of prime importance and deserving of special attention is the preparation of the patient. It goes without saying that the patient should be stripped to the waist, no examination through even the thinnest of garments being of any worth whatever. The clothes should be

fastened securely, but not tightly about the waist, and in case of women, a cape or sheet should be loosely draped over the shoulders to overcome any misgivings or modesty. The room should be well lighted, warm, but not hot, and above all, quiet, since even the most trivial noise may upset the examiner. Of most importance is the position of the patient, which should be sitting erect, at ease, on a revolving stool, with complete muscular relaxation, directly facing the window or artificial source of light.

INSPECTION.

Inspection is claimed by many chest men to be second only in importance to auscultation, and certain it is that considerable data can be obtained by this method, which otherwise would be overlooked. It should not be confined to the chest, but should include the body as a whole, since the stigmata of tuberculosis are not confined to the chest alone, but are often to be found in various parts of the body. Inspection should include careful notation of:

1. The general appearance, whether robust or delicate.
2. The complexion, whether healthy or whether there is pallor with the hectic flush so often found in pulmonary tuberculosis.
3. The eyes, whether there is unilateral dilatation, or what is more rarely found, unilateral contraction of the pupils. Fishberg says that, "The most pathognomonic parts of the cast of the consumptive are his eyes." Frequently the eyes are sunk deep in their sockets with a distant, bright, glassy look.
4. The general musculature and nutrition, noting the degree of emaciation and atrophy if present.
5. The skin for vasomotor disturbances; cholasma pthysicorum usually to be found on the forehead and pityriasis versicolor.
6. The hands for clubbing of the fingers or other deformities.
7. The neck for enlarged glands and undue prominence of the sternocleido mastoid, and trapezius muscles due to spasticity. (Pottinger's sign.)

Inspection of the chest should consist of five distinct views, namely: anteriorly, posteriorly, right and left lateral and from above downward, the examiner standing behind the patient looking over the shoulders. The more important things to be noted are:

1. Type and shape of chest, whether long and narrow, flat and broad, funnel, chicken, or barrel shaped. In early pulmonary tuberculosis the shape of the chest, as a rule, presents no abnormality, but

in the more advanced cases it tends to become quite characteristic. Along with deformities of the chest abnormalities of the spine, such as kyphosis, are frequently noted.

2. Asymmetries in the configuration of the chest, especially (*a*) drooping of a shoulder; (*b*) undue prominence of the clavicle with depression of the acromial end, and prominence and winging of the scapula on the involved side; (*c*) retraction above and below the clavicle; (*d*) localized bulging.

3. The respiratory movements during both quiet and forced breathing, paying particular attention to: (*a*) lagging which is best ascertained by standing behind the patient and looking over the shoulders, watching the clavicles and ribs during both inspiration and expiration, and which is an indication of a recent lesion, and (*b*) limited or diminished expansion, which usually means a more advanced process, with pleuritic adhesions. It also occurs in cases of hydrothorax, pneumothorax and hydropneumothorax.

Of lesser importance may be mentioned spasm of the pectorals, scalene and trapezius muscles to be noted at times in early cases, while in the more advanced cases the same muscles tend to become atrophied, being distinctly smaller than the corresponding muscles on the unaffected side. Also quite frequently dilated veins can be seen on the affected side.

PALPATION.

Palpation of itself is of less value than any of the other methods of examination, and can be most readily dispensed with if haste is necessary. However, palpation does, in a large measure, confirm the results of inspection, particularly in the detection of, (*a*) enlarged glands, (*b*) lagging, (*c*) decreased expansion. Pottenger's phenomena can best be ascertained by light palpation. In addition, vocal fremitus can be determined by palpation, being increased in pulmonary fibrosis, consolidation and cavities unless filled, whereas fremitus is decreased in extrapulmonary conditions, as hydrothorax, pneumothorax, thickened pleura and where there is obstruction of the bronchus.

PERCUSSION.

Percussion requires considerable practice to develop good technique, the lack of which results in erroneous interpretation of the underlying pathology. Absolute quiet is essential, so that the tones produced by the chest when percussed will be audible. The pleximeter finger should be placed firmly in apposition with the ribs, no other part of the hand touching the chest, and the stroke of the flexor finger should be de-

livered lightly from the wrist, striking the pleximeter finger directly at a right angle. Too heavy a stroke causes considerable dissipation of the force of the blow, resulting in vibrations being produced in too large a volume of lung tissue, small lesions thereby being overlooked. Small lesions or areas of infiltration can be detected far oftener by resistance percussion, provided one's sense of touch is highly trained, than by appreciable audible dullness. Any deformities that were noted on inspection, such as unequal development of the two sides of the chest, either muscular or bone, or deformities of the spine, must be taken into consideration, as they may be the direct cause of an abnormal percussion note. It is best to follow a definite procedure in percussing every chest, such as the following:

1. Percuss out the lower border of pulmonary resonances, at the end of both deep inspiration and deep expiration, thereby determining the pulmonary excursion, which is decreased in emphysema, certain intrapulmonary conditions, and pleura-pulmonary adhesions.

2. Percuss out the apical resonance (Kronig-Isthmus) on both sides to determine if any narrowing exists, which is indicative of pulmonary retraction, due to an old lesion, bearing in mind that normally the resonance is decreased at the right apex as compared with the left.

3. Percuss along the borders of the sternum and dorsal vertebræ, to detect enlarged bronchial glands, which are of a special importance in children.

4. Percuss the chest as a whole, always comparing corresponding parts of both lungs, paying particular attention to the apices of both lower and upper lobes.

The variations and sounds produced on percussion range from tympany to flatness, and with the underlying pathology may be briefly summarized as follows:

1. Tympany over an early tuberculous infiltration, particularly at the supraspinous fossæ, due to the apical emphysema, over large cavities and over areas of pneumothorax.

2. Hyperresonance in cases of emphysema and compensating lungs.

3. Impaired resonance of varying degrees over tuberculous infiltration, fibrosis, consolidation or any other process that impairs the normal elasticity of the lungs, and over thickened pleura.

4. Flatness in cases of pleural effusion.

AUSCULTATION.

Auscultation is the most important single method of examination the physical examiner has at his disposal. Like percussion, it requires

considerable practice to become proficient in its application in the diagnosing of chest pathology. It is, however, the only method of physical examination that gives us the clue as to whether or not the underlying lesion is active. While it is quite true that active tuberculosis can be present without rales, and vice versa, yet persistent localized rales, of the same vicissitude, nearly always indicate an active lesion.

The chest, as a whole, should be auscultated first, paying especial attention to the axillary spaces, as it is here that the normal vesicular murmur for the particular patient being examined is to be heard. It is best to begin at the bases and proceed upwards, since tuberculosis, as a rule, begins in the apices, and unless there is fluid, or thickened pleura, we would expect to get normal findings at the bases, thus being enabled to more readily detect abnormal changes than if we began at the apices. It is absolutely essential that the patient be instructed to breathe quietly through the mouth. Telling the patient to breathe faster than normal causes him to concentrate his breathing, invariably resulting in the upsetting of the normal ratio between inspiration and expiration.

During the course of auscultation, the following should be noted:

1. Breath sounds.
2. Voice transmission.
3. Adventitious sounds (rales, friction, murmurs, muscles, crepitations, etc.).

1. Breath sounds are best studied by single phase auscultation, that is, inspiration and expiration are studied separately, noting the intensity, quality, duration and pitch of each phase. The variations in breath sounds encountered in tuberculosis are:

(a) Feeble breathing, often the first change in early tuberculosis and pneumonia. It occurs also in emphysema, thickened pleura and obstruction, which partially occludes a bronchus.

(b) Granular breathing, claimed by many to be pathognomonic of early tuberculosis.

(c) Bronchio vesicular breathing, indicative of pulmonary infiltration, tuberculous or otherwise.

(d) Bronchial breathing, heard over consolidated lungs and compressed lungs, due to pleural effusion, pneumothorax, etc.

(e) Cavernous breathing, heard over large cavities and open pneumothoracies.

(f) Amphoric breathing, heard over cavities and closed pneumothoracies.

(g) Absent breath sounds in pleural effusion, pneumothorax unless open, or where there is occlusion of the bronchus.

2. Voice transmission is of value in confirming the results of percussion, as a general rule, being increased over areas which are dull on percussion. The spoken voice is of less value than the whispered voice, since in the normal chest the whispered voice is only heard at the apex, extending down to the second rib, more marked on the right side, while the spoken voice may be heard over the entire chest. It is the consensus of opinion that the whispered voice offers the best means to detect small areas of infiltration which otherwise would go undetected. It is increased over areas of infiltration, consolidation, compression of the lung and cavitation of a tuberculous nature, or otherwise.

3. *Adventitious Sounds.* As mentioned before, rales offer the best means of determining whether or not activity is present, and, therefore, considerable time should be spent auscultating for rales, paying particular attention to their type, distribution and the phase of respiration in which they occur. There are many classifications of rales, all having more or less merit, but the one originated by Colonel Bushnell, and used by the army tuberculosis specialists, is of especial merit, in that it is simple, having only three main divisions, namely: (1) crepitant; (2) subcrepitant; (3) indeterminate. It should be borne in mind that rales are only elicited when the tuberculous process has become caseous, causing moisture to be present in either the bronchioles or alveoli, and in themselves are neither absolute proof of activity nor by their absence proof of inactivity. All types of rales are met with in pulmonary tuberculosis, and with accompanying breath changes are of the greatest value, not only in diagnoses but also in prognosis. To elicit rales, have patient inspire normally, expire slightly longer than normal, and follow by a gentle cough; too hard a cough obscures rather than brings out the rales.

(1) Subcrepitant and crepitant rales are the rales of acute inflammation and are found in pneumonia and a recent tuberculous process. They are usually heard during inspiration or only at the end of inspiration, and are to be differentiated from:

(a) Atelectatic rales, which are dispersed by a few deep breaths and

(b) Pleural crepitations, usually to be heard at the bases. Crepitant rales heard over the supraspinus fossæ are of great significance in diagnosing early tuberculosis.

(2) Indeterminate rales are the rales of chronicity and may be

heard during any phase of respiration. They are further divided into: (a) small and large, moist or bubbling; (b) aibilant and sonorous.

(a) Small moist or bubbling indeterminate rales are the so-called typical rales of tuberculosis, and are the rales to be found in most cases of active, chronic pulmonary tuberculosis, while the large moist or bubbling indeterminate rales are usually heard in far advanced, active cases of pulmonary tuberculosis, and in cavity formation. They are also heard in edema of the lungs and bronchitis.

(b) Sibilant and sonorous rales, the so-called musical rales, are commonly found in asthma, emphysema and bronchitis, but when localized over an apex are apt to mean a stationary or retrogressive tuberculous lesion. They are also often met with in senile patients, when no other types of rales can be elicited. When tuberculosis is complicated with pneumothorax, metallic tinkle and succussion splash can often be heard.

The rales of tuberculosis must not be confused with:

- (1) Atelectatic rales previously mentioned.
- (2) Muscles crepitations, which can be eliminated by completely relaxing the muscles of the shoulders.
- (3) Costosterno and sternal crepitations, recognized by moving the shoulders while holding the breath.
- (4) Skin and hair crackles, eliminated by applying oil or water to the skin.
- (5) Marginal rales, heard only at the bases, being due to the separation of the parietal and visceral pleura. They are usually dissipated by deep breathing.

CONCLUSION.

In examining the chest for pulmonary tuberculosis, take plenty of time and practice accuracy, rather than speed, always comparing corresponding parts of both sides, concentrating on the one phase at a time, that is, do not attempt to listen to breath sounds while listening for rales. Remember that it is not safe to rely on any one method of examination, but that correlation of all methods of physical examination, plus a carefully taken history, together with tuberculin tests, laboratory and roentgenological findings, are necessary before a definite diagnosis can be made.

FINALE.

No chest examination in which the findings are indefinite is complete unless the nares and larynx are examined for obstruction, and the teeth, tonsils and accessory sinuses for infection, for it is becoming more and more evident that they are the source of symptoms similar to those encountered in pulmonary tuberculosis.

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ACQUAINTANCESHIP WITH THE A. M. A.

Dr. F. C. Warnshuis, of Michigan, present speaker of the House of Delegates, in an address entitled, "A Definite Program for 1925," set forth Acquaintanceship as the target to aim at. With this aim we agree. The American Medical Association will gain in force and usefulness just as fast as the members get acquainted with it. The great national organization stands ready to do its part in the process. We believe the individual members stand ready, but need a little stimulation.

Every member will profit in an investment in acquaintanceship with the parent organization. He will learn that he may secure valuable information about medical legislation, past and proposed, that he may receive upon request a bibliography upon medical subjects. County Secretaries would learn helpful ideas about programs and meetings from other county secretaries. Councilors would gain wisdom in the duties of councilors from intercourse with other councilors. On the whole we all would learn how to enjoy and enrich ourselves.

We urge the members of the Maine Medical Society to take hold of this suggestion seriously. Write to the headquarters for information, read the bulletins, write articles for the bulletin. Attend meetings, not only of local societies but neighboring societies, and plan to go to the big meeting at Atlantic City. We venture to say that 60 per cent of the members are unable to state clearly the difference between a fellow and a member of the A. M. A. And we would venture to wager that 90 per cent are unable to give the number and names of the trustees of the A. M. A. This seems to be a bad state of education in the subject of medical organization. Well, there is no teacher with birch in hand to make the members learn the subject. It is thought generally that graduate students need not the discipline of earlier years. We wonder if this is so?

T. A. F.

THE NEW PROHIBITION AMENDMENT.

We believe it to be the duty of every physician to talk personally and publicly, at every opportunity, against the adoption by Maine of the latest attempt to supervise the personal liberties of the people, and especially of children under eighteen years of age. We object, first, because the new amendment will add to the army of officials already overpowering in proportion to the people generally. We object because it interferes with our homes and our occupations as physicians. No child under eighteen years of age, if this amendment is adopted, can do any work in and around the home to help out the parents. This means to weed the garden, to sweep the sidewalks, to saw or cut wood, to iron clothes, to cook anything in the kitchen, to mend their own clothes, and so on indefinitely. In a word, no child under eighteen can "labor" without the expectancy of a visit from some official and a fine for breaking the law. As to physicians, no one of us can employ, under eighteen years of age, an office boy, or office girl, or a stenographer, or a nurse learning the rudiments of her calling, without the possibility of being visited by an official, called to account and fined for breaking the law.

If common sense had entered into the minds of the congressmen passing the law for the proposed amendment to the Constitution and directed it solely against mining or factory work and farm work at inclement seasons of the year, less objection might have been made to it, but to include every sort of labor within its possible provisions is unendurable and should be opposed.

People ought to remember that the visits from officials of Washington represent merely the personal opinions of those men, but that if we wish to object, or to fight them, it cannot be done in Maine, but we are obliged to go to Washington with all its attendant expenses. "It is forbidden" was the watchword of Germany, and we know how it eventuated. Let us be spared further prohibitions until the first one is assimilated by the aggravated people of this nation.

J. A. S.

THE GORGAS MEMORIAL.

We have twice read messages to the members of the Portland Medical Club concerning this memorial, but have failed to arouse any enthusiasm whatsoever. The main idea is to build to the memory of General Gorgas, in the region of the Panama Canal, an Institute of Tropical and Preventive Medicine, in order that future generations may remember that Gorgas here put an end to the pestilences which

had killed so many victims during former attempts to build the canal. The idea is excellent, as is the further suggestion that we should endeavor to educate people to believe that scientific medicine is the real authority in all health matters and should be regarded as the source of instruction in this respect.

It seems to us that the people of the world whom Gorgas benefited by his labors should pay largely for this imposing monument to the fame of the great physician, but for all that, physicians also should be pleased to contribute and to find their names, ultimately, on the roll of givers to a most worthy affair. We also find the further reason why the Gorgas idea should prevail, because with our Philippine provinces under our care the study of tropical medicine becomes more and more important yearly.

We note that this is a world-wide effort to commemorate the fame of General Gorgas, and that upon the Advisory Council are to be found the names of famous personages throughout the civilized world.

Although no direct appeal to physicians has no far been made, we suggest that the officers of the county societies should notify the members at their next meeting that this subject is to be discussed, and that at the annual meeting of our Association in 1925, a personal appeal to all the members should be voiced in the annual address of our President. Possibly, also, a small extra assessment for each member for 1925 might be of advantage to the funds of the proposed memorial institute.

The physicians of Maine are so scattered about that all efforts to get them assembled together for any purpose is very difficult, as are all efforts to obtain funds for even the most worthy purposes. Perhaps by publishing this item broadspread in our JOURNAL, members may be willing to send contributions personally to the editor, by whom they will be forwarded to the central committee in Chicago. And so, hopefully, we send out this message in the columns of our JOURNAL to the members of the associations throughout the State.

J. A. S.

THE RIGHT SIDE OF THE ROAD, THE LEFT.

We are writing to the State Superintendent of Schools, asking him to say at the annual meeting of the teachers of Maine, that children should be instructed to come to school or to go home from school on their left hand of the highways where there are no pavements. In this way accidents from motor cars can be best avoided. The slightest

thought shows every one that when a child walks on the left-hand side of the highways he cannot only hear cars approaching, but he can, with his eyes, see the danger. If he walks on the right-hand side of the road he can only hear a car, unless all the time he walks backward or is continually turning around to see what is coming. We ask also that physicians and nurses and all interested in children will constantly remind them of the safe side of the highways.

Furthermore, children should be taught, when leaving school or coming toward it in groups, to keep together on one side of the road, because if they divide into two groups, it is confusing to the most careful drivers to keep an eye on two separate groups, for he cannot tell exactly what any one of either group may do in an instant of thoughtlessness.

Last of all, children should be taught never, under any circumstances, to walk on the highways reading books or newspapers. Thoughtlessness on the part of children contributes as much to accidents as defective driving of cars.

This little note from us would not have appeared at all had not a recent newspaper editorial asserted that a man was injured because he was walking "on the wrong side of the road," namely the left-hand side, whilst, had he been on the right-hand side of the road, he might have escaped." The writer of that annotation forgot the truth, namely: that the left-hand side of the road is the safer side for those compelled to walk along it, young or old, because, as we say again, on the right-hand side he relies solely on ears, whilst on the left-hand side eyes and ears both promise safely from accidents.

J. A. S.

VACCINATION.

A Note from the Surgeon General.

General Cummings, in a letter dated September 14, calls urgent attention to a considerable national prevalence of smallpox in the years 1922 and 1923, namely, nine hundred and sixty-seven deaths from that disease reported, to say nothing of instances which never get into print. During the first six months of the current year, more than two hundred similar deaths have been reported. He urges that continuance of the present sporadic cases may lead to quarantine and interference with travel from one state to another. To the argument that vaccination is something for the individual to decide for himself, he replies that in case of war it would not be wise to leave the question of defence to each individual. In either case individuals become enemies. He urges

emphatically that all children, misinformed by parents or incapable of understanding the dangers of smallpox, ought to be vaccinated as a matter of public defence against an enemy, namely: a fatal disease.

One of the great difficulties in moving the people to make the very smallest effort for public health in their own homes and families is indifference to the benefits of vaccination. Whenever asked, it is the duty of every physician to urge vaccination of the young and fresh vaccination of older people, and to study for that purpose the newly suggested method of vaccinating percutaneously.

General Cummings prints elsewhere in the *National Public Health Reports* for September, 3,587 cases of smallpox in India, in the two weeks June 22-July 5, with 860 deaths, showing a mortality of one in about three of all the cases reported.

J. A. S.

NEWS ITEM.

The Rockefeller Institute for Medical Research has announced the release of the drug known as Tryparsamide for use in the treatment of human and animal trypanosomiasis (African sleeping sickness and *mal de caderas*) and selected cases of syphilis of the central nervous system. This action is based on results reported from clinical investigations which have been in progress for several years. The drug will be manufactured by the Powers-Weightman-Rosengarten Co., of Philadelphia, and will become available through the regular trade channels about January 1, 1925. In releasing the drug for the benefit of the public, the Rockefeller Institute desires it to be known that the Institute does not share in any way in profits that may be derived from the sale of the drug, and that, with the cordial co-operation of the manufacturers, provision has been made for the maintenance of a schedule of prices on as low a basis as possible.

Necrology.

AUSTIN THOMAS.

Unity and Elsewhere, 1842-1922.

Few physicians have ever practiced in so many different places as Dr. Thomas, a former member of our Association and of the Knox County Society, and for that reason a few notes concerning him will not be amiss in the JOURNAL.



DR. THOMAS.

Dr. Thomas, the son of Stephen and Miriam Bragg Thomas, was born in Waterville, September 5, 1843, and educated in the schools of that city. When the war broke out, in 1861, he enlisted in the Brown University Light Artillery at Providence, Rhode Island, and when their services were not required he enlisted in the 150th Regiment Ohio Infantry and served bravely. He came back to Waterville, was graduated at Colby in 1866, and was the class prophet. During the next four years he taught in academies at Augusta and elsewhere, and pursued

his medical studies at Bowdoin, where, after a high record, he was graduated in 1870.

Directly afterward he was appointed an assistant to Dr. Bancroft at the New Hampshire State Hospital, and after two years he returned to Waterville to look after his aged parents, and from there he migrated to various places of practice for the rest of his life. His headquarters were, as one might say, the town of Unity, for he practiced there four periods of about three of four years each, at intervals, during the rest of his life. In Maine, he practiced in Waterville, in Augusta, in Bowdoinham, in Thomaston and in Hampden. Outside of Maine, he practiced in Plattsburg, New York, in Kittany, Penn., and briefly in Washington, D. C. He retired from practice in 1921, lived in Portland for a year, and finally removed to Plattsburgh, where he died from various complications, mostly of nephritis of bladder origin January, 1922.

Dr. Thomas was twice married, once to the beautiful lady, Miss Norton, of Plattsburgh, and a second time to the widow of Dr. Foot, of that city. He may have been led into his wandering career by inducements and suggestions from these ladies, but the probable cause of all was the fact that he was deaf and could not readily understand his patients. He failed to live long enough in any one place to live down his defect; to make efforts by special apparatus to hear most of what his patients said, and to have laughed off his loss of hearing as well as he could.

Dr. Thomas was a tremendous reader of all sorts of literature, medical and otherwise, wrote a good paper on "The Boer War," seems to have paid no attention to medical papers or meetings, drove three horses on his daily rounds of country practice, had a good record of some hundreds of obstetrical cases with no maternal mortality, and was a man highly respected and thought of as a Colby alumnus. He was a fine looking man, and his face proves that without his obstacle he would have risen to heights in medical circles. Compared with physicians blind, maimed, deformed, and otherwise hindered in their professional life, we can only believe that, had Dr. Thomas studied lip-reading and utilized the proper apparatus to enable him to hear, he would have gone far in medicine.

He is survived by a widow and a daughter, who lament his loss, well convinced of his medical ability and personal devotion to them.
—J. A. S.

County News and Notes.

ANDROSCOGGIN.

ANDROSCOGGIN COUNTY MEDICAL SOCIETY.

The annual meeting of the Androscoggin County Medical Society was called to order by Dr. R. A. Goodwin, the President.

The same board of officers was re-elected for the following year:
President—Dr. R. A. Goodwin.

Vice-President—Dr. W. W. Bolster.

Secretary-Treasurer—Dr. L. J. Dumont.

Board of Censors—Dr. W. Chaffers, for one year; Dr. D. A. Barrell, for two years; Dr. T. J. Fitzmaurice, for two years.

Delegates—Dr. L. P. Gerrish, for one year; Dr. W. E. Webber, for one year.

Dr. Wm. Henry Smith, of Boston, chief of the Medical Staff at the Massachusetts General Hospital and professor at Harvard, read a highly appreciated paper on "Aging Heart and Allied Conditions, and Treatment."

Dr. Williams, of Mechanic Falls, was voted to membership.

It was voted to assess the members \$1.00 to cover running expenses of the society, and also to endorse the move by the Maine Public Health Association to open an orthopedic clinic in Lewiston.

Those present at the meeting were: Drs. Goodwin, Hall, Haskell, Emmons, O'Connell, Desaulniers, Cushman, Pierce, J. Scanell, Grant, Randall, J. Sturgis, Buker, Bolster, Dupras, Higgins, Ladouceur, Andrews, Gauvreau, Call, Renwick, W. E. Webber, H. Garcelon, Chaffers, Pelletier, Barrell, Sweat and Dumont.

From out of town there were: Dr. Lester L. Powell, of Portland; Dr. Stewart, of South Paris; Drs. Smith and Rand, of Livermore Falls; Dr. Plummer, of Lisbon Falls, and Drs. Staples and Hasty, of Norway.

L. J. DUMONT, M. D.,
Secretary.

SITUATIONS WANTED

WANTED: Salaried Appointments for Class A physicians in all branches of the Medical Profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service.

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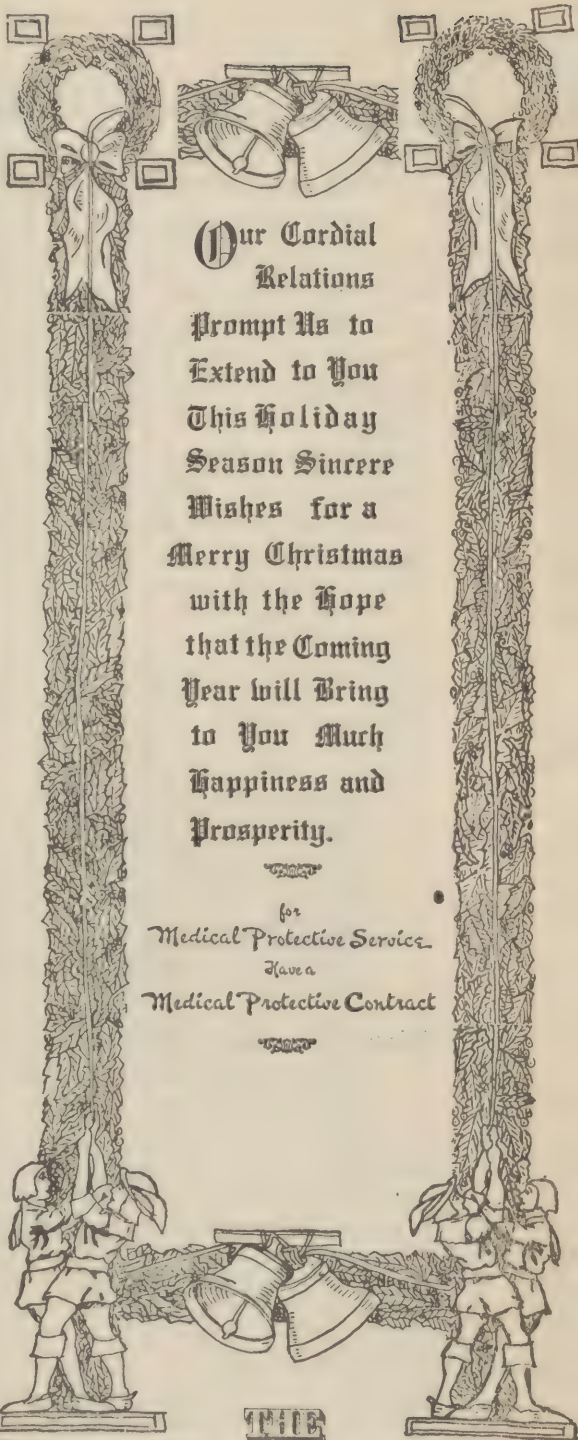
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Note.

THE AMERICAN BOARD OF OTOLARYNGOLOGY.

The American Board of Otolaryngology was organized in Chicago on November 10th. The following constitutes the Board of Directors: Drs. Harris P. Mosher, Boston, President; Frank R. Spencer, Boulder, Colo., Vice President; Hanau W. Loeb, St. Louis, Secretary and Treasurer; Thomas E. Carmody, Denver; Joseph C. Beck, Chicago; Thomas H. Halsted, Syracuse, N. Y.; Robert C. Lynch, New Orleans; Burt R. Shurly, Detroit; Ross H. Skillern, Philadelphia; William P. Wherry, Omaha. The office of the board is at 1402 South Grand Boulevard, St. Louis, Missouri. The board comprises representatives of the five national otolaryngologic associations, the American Otological Society, the American Laryngological Association, the American Laryngological, Rhinological and Otological Society, the American Academy of Ophthalmology and Otolaryngology and the Section of Laryngology, Otolaryngology and Rhinology of the American Medical Association. The object of the association is to elevate the standard of otolaryngology, to familiarize the public with its aims and ideals, to protect the public against unqualified practitioners, to receive applications for examination in otolaryngology, to conduct examinations of such applicants, to issue certificates of qualification in otolaryngology and to perform such duties as will advance the cause of otolaryngology. The first examination will be held at the time of the meeting of the American Medical Association.

Book Review.

History of Dentistry in Maine, with an account of fifty years of the Maine Dental Society.

We have received from our former co-laborer in medicine and surgery, Dr. Dana Willis Fellows, once of Portland, a copy of his very excellent history of all things concerning the art and science of dentistry in Maine, and for this kindness we give due thanks. The book, of some one hundred and thirty pages, covers every possible item concerning dentistry in Maine, and is based on an address composed by Dr. Fellows in commemoration of the fiftieth anniversary of the founding of the Maine Dental Society. Accounts of all of the meetings are given, with programs carried out, preparations exhibited, dental work clinically performed for members to witness, and all legislation concerning dentistry. Portraits are inserted here and there, and the book is enriched with a very extensive list of lives of members deceased, active,

or retired. This portion of the book is invaluable to Maine's dental history, to say nothing of the history of the families to which these men belonged. With incalculable patience the author has collected an enormous number of facts, dates and anecdotes, and put them all into readable shape. It is rare to see such superabundant industry as Dr. Fellows has displayed in this portion of the book, and we regret that it was not bound in a more lasting form, for the biographical notes are of great value to the searcher after genealogical and biographical facts concerning a large number of very able men in Maine.

It is good that Dr. Fellows has been able to carry out this labor of love so successfully, and the Maine Dental Society is to be congratulated for having backed up these efforts to put into permanent shape its history for fifty years past. May another half century find another writer to add to the data so excellently put together by Dr. Fellows, whose fortunes, far from Portland, we shall watch with pleasure, and wish him good luck wherever he may stray.

Notice.

A very good medicine case, apparently new, was picked up on the state highway, near Bowdoinham Corner, the afternoon of the Bowdoin-Tufts game. Case had no name in it. Case was advertised in the *Kennebec Journal* for several days. May be seen at the Kennebec Savings Bank, Augusta, Me.

\$4⁷⁵



\$4⁷⁵

BOSTON BAG—16 INCH

THIS genuine leather bag is made over a full 16-inch frame. Has heavy canvas lining with pockets for papers and loops for bottles. Body is firmly riveted to frame. Fastened with heavy leather strap and long brass buckle. This bag will give you your money's worth many times over. Just the bag you have been looking for—at a remarkable price.

2CJ5278. Boston Bag.....\$4.75
Postage extra, shipping wt., 3 lbs.

FRANK S. BETZ COMPANY, Hammond, Indiana.
Chicago, 30 E. Randolph St. New York, 6-8 W. 48th St.

Enclosed is check for \$..... for which send me at once..... 2CJ5278 Genuine Leather Boston Bag. If I am not well satisfied with it, it will be returned for full credit.

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NEW AND NON-OFFICIAL REMEDIES.

The following articles have been accepted by the Council on Pharmacy and Chemistry for inclusion in New and Non-official Remedies.

Hoffmann-LaRoche Chemical Works:

Secacornin.

Thigenol.

Intarvin Co., Inc.:

Intarvin.

Eli Lilly and Co.:

Ampules Ouabain, 0.0005 Gm. (1/128 grain)—Lilly.

Hypodermic Tablets Strophanthin (1/100 grain)—Lilly.

Hypodermic Tablets Strophanthin (1/120 grain)—Lilly.

Iletin (Insulin—Lilly) U-80.

Merck and Co.:

Benzyl Succinate—Merck.

Parke, Davis and Co.:

Ampoules Adrenalin Chloride Solution Rx. 1, 1:10000, 1 C.C.

Ampoules Adrenalin Chloride Solution Rx 2, 1:2600, 1 C.C.

Ampoules Adrenalin Chloride Solution, 1:1000, 1 C.C.

Sharp and Dohme:

Hypodermic Tablets Strophanthin (1/200 grain)—S. and D.

Ergotole:

Ampules Ergot, 1 C.C.

E. R. Squibb and Sons:

Insulin, 10 Units—Squibb.

Insulin, 20 Units—Squibb.

Swan-Myers Co.:

Sterile Ampoules Mercuric Potassium Iodide, 0.017 Gm.,
(1/4 grain)—Swan-Myers.

Synthetic Drug Co., Inc.:

Compressible Capsules Mercury Salicylate, "Synthetic," 1
grain, for intramuscular injection.

Compressible Capsules Mercury Salicylate, "Synthetic," 1½
grains, for intramuscular injection.

Compressible Capsules Mercury Salicylate, "Synthetic," 2
grains, for intramuscular injection.

Winthrop Chemical Co.:

Novasurol:

Novasurol Ampules.



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